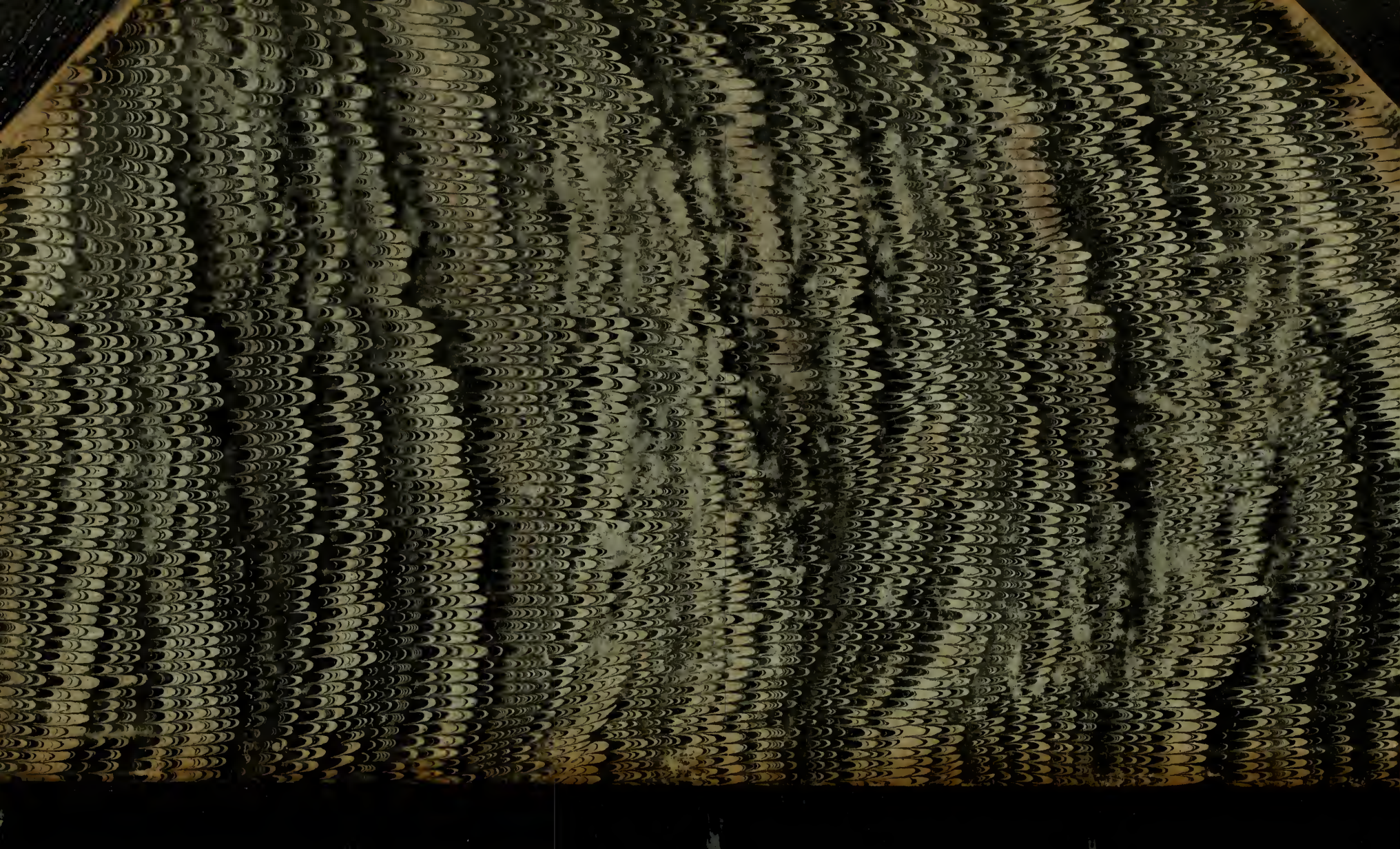


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THE AMERICAN

MEDICAL MONTHLY.

JULY, 1859.

ESSAYS, MONOGRAPHS, AND CASES.

Obstetrical Notes, based on 1,000 *Cases of Delivery.* Read at the Annual Session of "The Medical and Chirurgical Faculty of Maryland," in June, 1859, as the Report of the Committee on Obstetrics. By WILLIAM M. KEMP, M.D., of Baltimore, Md.

We propose to analyze the first one thousand cases of delivery that occurred in our experience, and to offer such thoughts and comments as may be deemed appropriate, under the respective heads which usually include the facts of midwifery statistics. We have taken the first thousand cases as they are registered, and limit the analysis to them, for want of time to consider the entire register, in readiness for the meeting of the Faculty.

The condensed character necessary for a report, precludes enlargement upon several topics of momentous importance, which it behooves the accoucheur to understand, and with which he is morally bound to acquaint himself, so as to be furnished for emergencies, or for prompt action, where delay or want of information may entail an unnecessary degree of suffering or mental anxiety on the parturient patient. We shall present the subject as it relates,

1st. To the mother.

2d. To the child.

PERTAINING TO THE MOTHER.

1st. *Whole Number of Children.*—The 1,000 cases of delivery produced 1,019 children; nineteen of the cases having borne twins.

2nd. *Age of the Mother when Delivered.*—I have not preserved a record of the ages of the mother in a sufficient number of cases to make the exhibit of any interest or value. The extremes of the ages, however, are accurately stated at 15 years and 43 years.

3rd. *Number of Times the Mothers had been Pregnant.*

Pregnancies.....	1	2	3	4	5	6	7	8	9	10	11	12	13
Mothers.....	213	165	130	84	48	30	12	12	3	5	2	5	1

It will be perceived that only 710 pregnancies are noted. There is difficulty in obtaining absolutely accurate numbers, in many cases, growing out of intercurrent abortions and miscarriages. The preceding table furnishes the following proportions in a thousand labors. The table is to be read thus: in every thousand cases, 300 will be first pregnancies, &c.

PROPORTION OF DIFFERENT PREGNANCIES IN 1,000.

Pregnancies.....	1	2	3	4	5	6	7	8	9	10	11	12	13
Proportion.....	300	232†	183†	118†	67†	42†	16†	16†	4†	7†	2†	6†	1†

4th. *Duration of Labor.*—I shall not offer any table of the duration of the labor. The difficulties which frequently embarrass the determining of the commencement of actual labor-pains, and the different phenomena which are regarded by different observers as constituting the commencement of labor, must give great uncertainty to the value of any such table, unless it be accompanied by lengthy notes and explanations. These would swell the present paper to an unjustifiable size. The recurrence of pains, with short intermissions, is usually regarded as diagnostic of incipient labor. This cannot be a fundamental truth. Women are frequently sorely distressed by pains of an intermittent character, accompanied by hardening of the uterus and tension of abdominal walls, imparting to them a sensation similar to the initial pains of former labors; and yet these pains may not be provoked by the cause of labor, but be dependent upon some trouble in the alimentary canal, or disorder in some other organ. I do not regard pain, *per se*, even of an intermittent character, as an indication that labor has commenced.

The commencement of labor should be acknowledged only when the pains are discovered to have a certain bearing on the os uteri, and on the uterine contents. The pains which constitute the commencement of labor will almost always be found to produce the same effects, and these effects will generally be in the same order of sequence. Upon *touching*, the following phenomena will be discovered if labor has really begun: Upon the incursion of pain, the margin of the os uteri becomes more rigid; the presenting part of the fœtus recedes from the finger; a greater or less quantity of amniotic water depresses the membrane within the os; and when the pain reaches its acme, the presenting part of the fœtus will again be brought down to the os uteri.

Although occasional cases occur in which the preceding circumstances obtain, and labor does not follow promptly, they must nevertheless be regarded as exceptional, and detract but little from the value which justly attaches to the signs as indices of imminent accouchement.

In an elaborate argument upon the order in which different portions of the uterus act in parturient pain, Wigand furnishes an account of the phenomena which constitute genuine pain. It is only pain characterized by these peculiarities which should be regarded as the commencement of labor. Ramsbotham says emphatically that "the presence of pain, even if it be periodical, is not always symptomatic of labor having begun."

The presence of a considerable quantity of vaginal fluid is not necessarily indicative of the commencement of labor.

Again, I am satisfied that tables of the duration of labor will exhibit different results, corresponding to the practical views entertained by the practitioners, who respectively tabulate the results of their experience, and that the value of such tables can only be estimated when the peculiar precepts which govern the practice are clearly stated.

There are two great classes of obstetricians, between whom the views entertained as to the manner of conducting a labor, form a line of distinction marked and emphatic. The comparative duration of labor, as experienced by these two classes of accoucheurs, in an extended series of cases, would be considerably discrepant, from the very principles by which the procedures of the two would be regulated. These two classes may be designated thus:

1st. Those who believe that a labor, in which the presentation is normal, and the position of the presentation is favorable to unassisted

delivery, should be permitted to pass through its stages without interference on the part of the accoucheur, *provided no symptoms involving the life or physical safety of the patient arise.* The probable duration of the labor and the possible evils to result from it are not allowed to weigh against the emphatic precept, "A meddlesome midwifery is bad." The great precept with this class is, to wait patiently for the processes of nature.

2nd. Those who inculcate the necessity for a steady exercise of patience in simple cases, but who nevertheless are convinced that it must be exercised with a limitation. They hold, that oftentimes the stages of a labor may be abridged by judicious assistance; that the accoucheur is morally bound to study the indications for, and the manner of, rendering this assistance; and that the parturient woman is entitled to, and of right ought to have, such assistance judiciously and opportunely administered.

In the ranks of the former class we find the names of those who are high authority in midwifery, and who have exercised a swaying influence over the professional mind of this country. In the front of these is Blundell, made so conspicuous among them by his boldly and often carefully repeating the aphorism, "A meddlesome midwifery is bad." Not the first in order of time, he is perhaps the most emphatic on this point.

Denman, in his instructions for the conduct of a labor, says, "he (the accoucheur) can do nothing until the womb dilates to admit the passage of the infant." Quotations from authors inculcating these views might be greatly multiplied, but the necessary limits of this paper preclude a more extended reference here.

In opposition to these views we have the dogma of Hamilton, that "the termination of the *first stage* of labor *should be secured* within twelve or fourteen hours from its actual commencement;" and his unequivocal assertion to support it, that "no patient under his charge for twenty-five years, has been above twenty-four hours in labor; and except in cases of disproportion, none so long." Not less decided is Burns, "that if a long time is spent in accomplishing the first stage of labor or dilatation of the os uteri, the vigor of the uterus and strength of the patient may be impaired so much as to render the subsequent stage dangerously tedious, or to prevent its completion, at least, consistently with safety. *The first stage of labor ought always to be accomplished within a certain time*, varying somewhat according to the constitution of the patient and the degree of pain. If the pains be continuing without suspension, or an interval of some hours, and the

labor be going on all the time, but slowly, *it is a good general rule to effect the dilatation of the os uteri within ten or twelve hours*, at the farthest, from the commencement of labor." (James Burns, edit. 1839, pp. 309–310.) Professor Miller, of Kentucky, a very profound thinker and philosophical actor in obstetrics, is perhaps the strongest American advocate for the propriety and importance of these rules of practice. After an interesting consideration of the subject, and a tolerably full *résumé* of the question, he adds: "I have for many years been in the habit of employing them under the circumstances which have been pointed out in a great number of cases, and no evil consequences whatever have resulted, but labor has been greatly assisted, and many accidents, as I am firmly persuaded, have been averted. My testimony, founded on experience, is, therefore, in favor of the safety and efficiency of the practice." (*Human Parturition*, 1849, p. 150.)

To pursue this subject further would occupy too much space in a paper like the present, although it merits the most considerate attention. A thorough acquaintance with its practical details will enable the accoucheur to abridge, by hours sometimes, the suspense and suffering of the parturient woman.

5. *Flooding.*—I cannot give an accurate account of all the cases attended by hæmorrhage. Those which were unattended by any particular interest in the circumstances or treatment, were merely indicated without any detail. It would not be proper to rely upon memory to supply the particulars. The memoranda of some cases have been made with care, and it may not be uninteresting to advert to a few.

Flooding before Six Months.—A lady who was delivered on January 6th, 1844, was attacked by copious hæmorrhage on the preceding 27th of August. Notwithstanding its arrest by perfect quietude, cool local applications, and internal means, it recurred frequently without any apparent provoking cause, and unattended by any pains of labor. Her strength finally became greatly reduced, and her general condition anæmic. The plan of treatment was essentially altered, and directed mainly to the reinvigoration of vital forces. She was taken from her house in a carriage properly prepared, and sent by steamboat on excursions on the Chesapeake Bay, to receive the impression of mental gratification and bodily exposure to air impregnated with sea-salt. The effect was very manifest; her improvement in all respects marked. The hæmorrhage disappeared, and she went until within a fortnight of her calculated time for accouchement. She gave birth to a living daughter, weighing five pounds.

Hæmorrhage during Labor.—Mrs. D. was taken with profuse hæmorrhage upon the first signs of labor, at 2 o'clock, A. M., on August 13. I was summoned immediately. Initial pains of labor occurred at moderately long intervals. Os uteri was very slightly opened, and a small portion of the margin of the placenta found over the os uteri. Perfect quietness was observed, and ice administered in small, but repeated portions; an enema of cold water was administered, which produced an abundant discharge of fæces. The tonic contraction of the uterus was unusually well maintained, and the presenting part (vertex) remained applied to the placenta. The first stage of labor was tardy, the os uteri opening slowly. When it became sufficiently dilated and soft, the membranes were ruptured, and delivery occurred at $2\frac{1}{2}$ o'clock, P. M. The child, a girl, was dead. The mother convalesced without difficulty.

Hæmorrhage after Birth of Child.—Cases need not be multiplied. Practical procedures are more worthy of consideration. As hæmorrhage under these circumstances always depends upon partial separation of the placenta, and will be arrested only when the separation of the mass becomes complete, it has been invariably a rule to effect the separation and delivery of the secundines without delay whenever flooding occurs.

An appreciation of the proper agency, by which the separation of the placenta is effected, is necessary to the adoption of the most direct means to excite that power when it is not brought into action opportunely or with sufficient vigor to detach the mass.

It is *not* the alternate or expulsive contractions of the uterus that effect the separation of the placenta.

The agent which detaches the placenta from the uterine surface is the tonic contraction of the uterus. This contraction, when fully exerted, separates and casts down the placenta upon the os uteri, whence it may readily be delivered. Frictions upon the abdomen over the uterus, alternated with compression of the uterus through the abdominal walls, will almost invariably induce the tonic contraction. Where the abdominal walls are much relaxed it will be found exceedingly serviceable to embrace the fundus, as much as possible, in the hand, formed into a cup shape, and thus to exert compression, following the fundus as the contraction of the body of the uterus draws it downward. Maintaining the hand in this position for a few minutes, will generally insure permanency of this contraction.

It must be an ever-remembered principle, not to use a tampon in any shape or form after the fœtus has been extruded from the uterus.

Hæmorrhage after Birth of Child, with Hour-glass Contraction of Uterus.—Hour-glass contraction of the uterus confining the placenta has occurred in five cases. The same general circumstances attended all the cases, and all were relieved by the same procedure.

Mrs. M. was confined at 10 o'clock, A. M., in an easy first labor; uterus well contracted on after-birth; after a short interval she complained of agonizing pain in the uterus, accompanied by a profuse hæmorrhage. The womb was found elongated, and examination discovered a firm hour-glass contraction, confining the placenta at the fundus. The hæmorrhage was continuous and profuse until the hand was introduced, the contraction overcome, and the placenta withdrawn. The flow ceased immediately as the contracting uterus followed upon the retiring placenta. No trouble was experienced in her convalescence. The large loss of blood did not delay the appearance of the milk.

Hæmorrhage after Expulsion of the Placenta.—The absence of feebleness of the tonic contraction of the uterus must be regarded as a fundamental condition for the occurrence of this hæmorrhage. I believe this to be true in every instance. I am aware that Dr. Gooch, in his "account of some of the most important diseases peculiar to women," has a chapter on "a peculiar form of hæmorrhage from the uterus," in which he thinks he disproves the universal applicability of the principle, that the absence of tonic contraction is the fundamental cause of hæmorrhage after the expulsion of the placenta. A very careful study of his cases will show the contrary of his view to be the correct one. A very able review of this chapter in Dr. Gooch's work may be found in the *American Journal of Medical Sciences*, Vol. viii., p. 419, from the pen of the late Professor Dewees. Professor Michaelis, of Kiel, has advocated views much like those of Gooch, but the most careful study I have been able to give to the cases of hæmorrhage in my own experience, has impressed my mind with the truth of the assertion, that in all hæmorrhages after expulsion of the placenta, (excluding, of course, cases of polypus, carcinoma, &c.,) the tonic contraction of the uterus is not perfectly or equally exerted.

It will frequently be found that the presence of clots in the uterus interferes with the healthful play of its actions, and that hæmorrhage of a profuse and painful character attends upon this condition. When this obtains, it will almost always be found that there is contraction of the internal orifice of the cervix uteri, offering obstruction to the escape of coagula, and causing them to plug the uterine orifice. This causes a false estimate of the amount of hæmorrhage by the external drain.

The following cases will illustrate the points. It is a subject of great importance, but the limits of a report prevent elaboration.

Mrs. K. was taken in her third labor about 12½ o'clock on the morning of February 19. She had spent the evening with her brother's family, near her residence, and returned home about 11 o'clock. She retired and dozed. At 12½ o'clock she awoke with the pain of labor, and her husband immediately dressed and started for her accoucheur. He had scarcely left the house before the child was born. I, living immediately opposite, was instantly summoned, and, in not more than twenty minutes, was at her bedside. I discovered that the secundines had been delivered immediately after the birth of the child, and that tonic contraction of the uterus had utterly failed. She was almost pulseless, with a surface cold as marble, and able to articulate only in the feeblest whisper. An immense quantity of blood had been lost, and was still issuing freely. Supposing that no clots obstructed the cervix, I at once instituted brisk frictions over the uterus, with occasional graspings of the hand, while an attendant was instructed to prepare and administer a cordial. The uterus commenced promptly to contract, and in a few minutes had effected sufficient compression of the sinuses to stanch the flow. Constant vigilance was exercised over the uterus, to secure a continued contraction. When her accoucheur arrived, the hæmorrhage had been entirely arrested. This lady suffered the ordinary consequences of such great loss of blood, but otherwise convalesced well under the charge of her experienced physician. The child, although it had remained attached to the placenta for some time after the expulsion of that mass, did not appear to suffer from any loss of blood.

Mrs. R. was delivered at 10 o'clock, P. M., after an easy, but not rapid labor. The expulsion of the placenta followed in good time, and the tonic contraction of the uterus depressed the organ to its proper position. All things were promising well. After a short time she was observed to gape and become blanched, complaining of great pain in the uterus, and nausea. The hand upon the abdomen immediately recognized an irregularly contracted uterus; one portion seeming hard, while another was evidently relaxed. Friction upon the abdomen procured hardening of the relaxed portion, and the discharge of some coagula, but the intense pain was not mitigated. The hand was at once introduced into the uterus, and discovered coagula confined in a segment of the organ. These were removed, and immediately the uterus contracted equably, the agonizing pain disappeared, and the hæmorrhage was arrested. Nothing occurred to interrupt a favorable convalescence.

I may be allowed, without multiplying cases, to add, that none who were attacked by flooding died, with the exception of a case of placenta previa, which will be referred to under another head.

6. *Placenta Previa.*—The one thousand cases furnished three examples of placenta previa. An examination of reported statistics shows a great difference in the average number of placental presentations, as will be apparent from the following table:

Name of Reporter.	Residence.	Total number of Cases.	Number of Placenta previa Cases.	Per cent. of Placenta previa Cases.
Dr. Van Bibber*	Baltimore, Maryland	1787	7	.39†
Dr. Metcalf †	Mendon, Massachusetts	1768	4	.22†
Dr. Bliss ‡	New York	820	3	.36†
Dr. Pleasants §	Philadelphia	395	2	.50†
Dr. Storer ‖	Boston	440	1	.22†
Dr. Pierson ¶	Illinois	279	2	.70†
Dr. Kemp	Baltimore	1000	3	.3

A brief history of the fatal case of placenta previa may not be uninteresting. Mrs. M., in her thirteenth labor, was the subject of this case. I am indebted to her intelligent physician for a history of the case, prior to my being called to his assistance. There had been occasional hæmorrhage for a fortnight before she fell in labor. This was at no time very profuse, but the aggregate loss of blood had enfeebled her considerably. Labor commenced on the 6th of March, and was attended by great hæmorrhage. The ordinary means for suppressing hæmorrhage were instituted, and the vagina very compactly plugged. Her exhaustion became extreme. I saw her, with her physician, on the morning of March 7th. She was greatly depressed. Blood was escaping from the vagina sufficiently to show that the hæmorrhage had not been arrested by the tampon, but had saturated it most thoroughly.

* Transactions of the Medical and Chirurgical Faculty, 1855.
† Massachusetts Medical Society, seventy-fifth Anniversary.
‡ American Journal of Medical Sciences, N. S., vol. xiv.
§ " " " " " " xv.
‖ " " " " " " xx.
¶ " " " " " " xxxiv.

The tampon was removed. Examination detected the placenta in a great degree separated, and lying at the cervix. Hæmorrhage was still persistent. The placenta was entirely detached from the uterus, and withdrawn. The hæmorrhage instantly ceased. The head descended, and was promptly delivered. Tonic contraction of the uterus was well maintained. Appropriate restoratives were employed, and in several hours I took my leave. I had been called only to meet the crisis, and did not see her after my departure. I was subsequently informed that after repeated attempts at rallying, her powers of life gradually succumbed, and she died on the fourth day after her delivery.

The fact that hæmorrhage ceases upon the entire separation of the placenta when uterine atony is not present, is, I presume, no longer a matter of dispute. Since the cases of Simpson, Radford, and others, have been published, and the attention of accoucheurs has been directed to this specific point, many examples have occurred to confirm the accuracy of the fact; and a very important principle of practice grows out of these observations. A case has occurred in our own experience, (to be mentioned under another head,) where the first child and its placenta (in a twin case) were delivered for more than seven hours before the birth of the second. No hæmorrhage occurred after the expulsion of the first placenta. Dr. Metcalf mentions (in his address before the Massachusetts Medical Society) three cases in which "the placenta was thrown off with the last pains before the expulsion of the child; and in neither case did any hæmorrhage follow the birth." A case is recorded in *American Journal*, new series, vol. vi., p. 518, where both placentas in a twin labor were expelled after the first child, and no hæmorrhage ensued, although several hours elapsed before the delivery of the second child. In the same journal, vol. xviii., p. 122, is the history of a case of gastrotomy, in which the placenta was found lying unattached and without any hæmorrhage. In the same journal, vol. xi., p. 243, a case of arm presentation is narrated, in which the doctor, upon his arrival, found the placenta between the mother's thighs, entirely expelled, without subsequent hæmorrhage. The child was delivered by version, and the mother, who is represented as being faint and weak, had a successful recovery. The journals furnish an abundance of cases illustrative of the principle, that, with these two conditions obtaining, viz., a complete separation of the placenta from the uterine wall, and the presence of decided tonic contraction of the uterus, there will be no hæmorrhage. This introduces an important modification into the treatment of some cases of placenta previa, and affords

a means of escape for the mother which was not acted upon before. I regard the discovery of the fact, and the construction of a judicious mode of practice so well calculated to enhance the probabilities of maternal life amid the perils of such cases, as constituting an era in obstetric medicine. I am not to be understood as regarding the separation of the placenta as the rule of proceeding in cases of placenta previa, but I am to be understood as believing that there are cases in which this procedure will save the mother, while the adoption of any other plan will be to forfeit the life of both mother and child.

7. *Liquor Amnii discharged long before Labor.*—Several cases occurred where the membranes broke and occasioned a stillicidium for a longer or shorter time before the invasion of labor. As there was special interest connected with one of these cases, it may be profitable to detail it.

Mrs. G. was taken ill with typhoid fever on May 5th, being then advanced about six months in pregnancy. Her attack proved to be one of very unusual severity, and of protracted duration, evincing those profound vital lesions that invest the disease with its intensity and danger. On the 2nd of June, (the 28th day of her disease,) whilst prostrated extremely by her sickness, I was alarmed by the intelligence that a copious discharge of fluid from the uterus had occurred. It was beyond question indicative of a rupture of the fœtal membranes, and escape of the amniotic liquor. There was no indication of uterine pain, although it could scarcely be hoped that miscarriage would be prevented. The water drained off steadily, and in abundance. On the next day, the 3d of June, uterine pain was manifested with considerable severity and regularity, threatening the expulsion of the fœtus at no remote period, and thereby diminishing fearfully the hopes of the patient's recovery. This supervention of pain, and the mental anxiety occasioned by the critical circumstances of her case, tended to produce a display of nervous phenomena which aggravated those incident to the fever. The agent relied upon to suppress the uterine throes, and to restrain the high exaltation of the nervous system, was the Acetated Tincture of Opium, given in such varying proportions, with Spts. Ætheris Nitrici, as the necessities of the case appeared to require. The anodyne was varied in dose from five to twenty drops, and repeated at such intervals as would not induce absolute narcotism. Fortunately, the lady tolerated the medicine well. The contest, however, was not of short duration. The pain continued both day and night, despite the restraint of the anodyne, but evidently kept in abeyance by it, and it was not until

the seventh day after its incursion that it was finally arrested. During this time the waters continued discharging. Rejoiced at the suspension of pain, I was still grieved to discover that the drain of water continued after the pain had been arrested, because I could not hope that my patient would ultimately escape miscarriage. Two days after the suspension of labor-pains, the water diminished sensibly in quantity, and finally ceased to flow. Hope for the lady brightened. Amendment of her general state soon became apparent, and she convalesced favorably until she recovered her usual degree of health.

She subsequently continued remarkably well, and gained greatly in flesh. She fell in labor on the 17th August, (two months and fifteen days from the rupture of the membranes.) The labor, which was her sixth, progressed most favorably, and she gave birth to a large, fat boy. I had looked forward to this accouchement with much anxiety and interest. Nothing dangerous attended the labor, but it was very remarkable that *there was only a trace of liquor amnii discoverable at any time during the labor.*

8. *Suspension of Labor-pains.*—It is a remarkable fact that sometimes, during the progress of actual labor, the pains will become suspended, and will remain so for a time varying from several hours to many days. Frequent examples have occurred among these 1,000 cases. This arrest of pain is not attributable to mental emotion or to physical exhaustion, since it occurs in labors which are natural in all respects, and in persons whose strength is not at all exhausted. The cause of this character of suspension is as yet, I presume, unascertained.

Mrs. H. fell in labor with her first child on August 19th, 1837, at 8 o'clock, A. M., in charge of Mrs. Hallar, an old and experienced midwife. The labor advanced regularly; by 12 o'clock considerable dilatation of the os uteri had been effected, and the waters protruded the membranes. A sharp expulsive pain ruptured the sac, and a quantity of the fluid escaped. The alternate contractions of the uterus instantly ceased, while the tonic contraction was exerted so decidedly as to maintain an unusual degree of firmness in the uterine walls. In all other respects the lady was well, and suffered in no way from this interruption. The midwife waited patiently from hour to hour for the return of pain, but abstained from any interference, inasmuch as the lady was, in no respect, suffering. At 8 o'clock, P. M., I was called, as some restlessness and fever made their appearance. There was no return of pain. Urine had not been voided for some hours, and the bowels were confined. The lady was able to evacuate

the bladder voluntarily, which afforded her considerable relief. I abstracted about 12 oz. of blood from the arm, and ordered an aperient draught. At 5 o'clock on the next morning (20th) pain returned, and effected the delivery very propitiously at 10 o'clock, A. M.

Mrs. H in her first labor was taken with pains about 10 o'clock on the evening of Sept. 11, 1841, which continued with regularity and dilating effect upon the os uteri until about 5 o'clock next morning. Now, everything gave promise of a speedy delivery. The os had opened considerably, and permitted the waters to gather. At this time the pain suddenly ceased, unaccompanied by any indications of lesion. I waited patiently until after breakfast for the return of pain, but the uterus remained quiet. The lady suffered in no way that would justify interference, and I left, for the purpose of commencing my daily visitations. Returning repeatedly during the day, I found affairs in *statu quo*. So they continued until about $11\frac{1}{2}$ o'clock in the night of the 13th, at which time pains returned, having been absent for $66\frac{1}{2}$ hours, without any attendant evil. The pains continued active, and effected delivery in about $7\frac{1}{2}$ hours after their recommencement.

Mrs. W., aged 43 years, in her tenth labor, was taken with pain on the night of 13th September, 1843, and summoned me about midnight. Her pains were active, and the soft, dilatable os uteri promising to offer no serious resistance to the passage of the fœtus, we congratulated ourselves on the prospect of a happy relapse from the care and anxiety of a protracted watching. But, as Burns says,

> "The best laid schemes of mice and men
> Gang aft aglee."

We were doomed to disappointment, for, while we were expecting the membranes to rupture with every contraction, and had ideally seen the subsequent rotation, extension, and escape of the stranger's head, the uterus suddenly became quiescent. Under the circumstances, I supposed the truce could last but a few minutes. But no pains returned, and after several hours waiting, the fears of the lady and her friends becoming excited, they became clamorous that something should be done. It was apparent, from the lady's comfortable state, that no vital or organic lesion had crippled the uterine powers. I bethought me, too, that now might be illustrated the truth,

> "That when nae real ills perplex them,
> They make enow themsels to vex them;
> And ay the less they hae to start them,
> In like proportion, less will hurt them."

So I said, somewhat abruptly, "Well, if you insist upon my doing something, I have made up my mind to do the best thing that I can for her." "Do, doctor, do," was uttered by several anxious friends in concert. "But what are you going to do, doctor?" inquired the patient. I replied, "Why, madam, I am going home, as there is not the slightest risk to you in your present condition, and there can be no certainty when the pains will return." The matter took a pleasant turn for the present, and the lady, reassured by my communication, became entirely composed. One day passed; two days passed, and yet no pains returned. Friends heard of the singular circumstance, and "came to learn how it was." Wonderful accounts were given to the family of ladies who had gone undelivered for years, and the horror of thus carrying a child was graphically portrayed to the anxious lady. She was sustained, however, by her confidence in the truth of my assurances. But as day after day passed, and afforded no indication of returning labor, the number and the clamor of "friends" increased; divers consultations, (to which I consented, and the lady objected,) and every variety of obstetric operation were pertinaciously urged by the visiting friends. The most saucy of them felt at liberty to suggest, authoritatively, to me, their own thoughts upon my duty, and the dictates of an upright conscience, and imagined that I,

> "Maun stan', wi' aspect humble,
> An' hear it a', an' fear, an' tremble."

These folks were dealt with properly; but despite the outside clatter, the uterus remained at rest. I was assured that the child was living, and that "all was right" with the patient. She no longer confined herself to her chamber. Nine days elapsed from the suspension of pain until its return. On the morning of the 22nd of September, at 1 o'clock, I was sent for, and a very easy labor produced a plump, hearty girl, at $3\frac{1}{2}$ o'clock, A. M., being only about two and a half hours from the onset of pain.

9. *Convulsions.*—The one thousand deliveries gave six cases of convulsions, two additional instances of cerebral congestion, which would, but for prompt relief, have resulted in convulsion or apoplexy, and one case terminating in apoplectic coma and death. Of these six cases of convulsion, two occurred before labor, and four during labor. Of the cases of cerebral congestion, one occurred during labor, and one subsequent to it. The apoplexy occurred after labor. Of the convulsions before labor, one was with a sixth pregnancy, and one with a fourth. The four cases occurring during labor were all in first pregnancies.

The cerebral congestion in labor was in a second pregnancy, and the case after confinement was a fourth labor.

All the children were head presentations. Four of the children were delivered by the forceps; the rest by the natural action of the uterus.

Of the mothers, one died; and of the children, one was lost.

Mrs. C. was confined for the sixth time on the 25th of July, 1843. She was of full habit, but accustomed to a considerable amount of exercise. On the 28th of June, nearly a month before labor, she complained of cerebral symptoms, which were relieved by a free venesection and an active cathartic, followed by a carefully restricted regimen. On the 16th of July, (nine days before labor,) she was seized with convulsions of an epileptic character, without the least premonition. She was again bled largely and purged, without an entire removal of the convulsions. The use of tartar-emetic in one-quarter grain doses, administered with a view not to its emetic action, but to its sedative influence over the nervous and sanguiferous systems, exerted a prompt effect in their subdual, and she did well until she fell in labor, on the 25th. During the dilatation of the os uteri, she was seized with a violent convulsion. She was again bled largely, and I was preparing to deliver her with forceps, when the uterus exerted itself powerfully, and I discovered the child ready to emerge from the vulva. The mother had one convulsion after the child was born. She continued subject for seven years to occasional returns of convulsions, when her habit became plethoric or her bowels constipated; but she never had an attack in a subsequent labor. She was treated by V. S. when indicated, and gently but steadily continued purgation and counter-irritation to the spine after each attack. For a number of years she has been entirely free from convulsion.

Mrs. T. was seized, on the morning of June 19, with spasm of the stomach and great dyspnœa, produced by offending ingesta eaten the night before. Her physician not being at home when called, I was sent for, and prescribed. Informed that she was daily expecting to be confined, I was careful in the selection of means for her relief. As soon as an aperient had acted freely upon her bowels, her pain and dyspnœa were greatly relieved. I was called late in the afternoon to see her in connection with her accoucheur, and found her in a strong convulsion. The os uteri was dilating under the influence of steady pain. The patient was bled, and delivered by forceps. The child was living. The mother continued insensible, and never rallied. It was a first labor.

Mrs. V., in her first labor, six days after the case above narrated. During the dilatation of the os uteri she was seized with a violent convulsion of unmistakably hysteric character. Pulse exceedingly rapid. A teaspoonful of Spts. Ætheris Sulph. Comp., and forty drops of laudanum, were administered, and the child delivered with forceps. The child was alive. There was no return of convulsion after the delivery.

Mrs. W's first labor commenced after midnight on the morning of August 26th. The lady was very stout in person, had lived freely, and taken very little exercise. Her bowels were confined. Castor oil was administered immediately after my reaching the case, which operated freely in four hours. As the pain became more active, she complained of headache, which was mitigated by local applications and quiet. There was no unusual activity of circulation. The womb dilated slowly, and she was suddenly seized with insensibility, followed quickly by convulsion. Immediately I bled her to a large amount, and her consciousness returned with the subsidence of the convulsion. Labor progressed slowly. About one and a half hours after the subsidence of the convulsion, a slight twitching of the face was observed, which proved the immediate precursor of another violent convulsion. During its continuance the capillaries of the head were intensely engorged. I bled her again largely, and she again recovered her consciousness. The oil had produced several large evacuations. I put her immediately upon the use of tartar-emetic, in sedative doses. The pains continued steady, but the uterus yielded slowly. The antimony appeared effective in subduing excitement, but nervous twitchings again coming on, and the soft parts permitting, I delivered her with forceps about 1 o'clock, P. M. The child was dead. The lady's convalescence was tedious, but ultimately her recovery was complete. Sixteen months after the last labor she was confined again; but having used proper regimen during the pregnancy, her accouchement was, in every respect, most happy.

Cerebral Congestion.—Mrs. R., second labor. I was summoned at 2 o'clock, A. M., of Sept. 5th. Pains very regular; os slightly dilated, but firm. Waters undischarged. About 3 o'clock she complained of headache, with intervals of ease; face slightly flushed and warm; pulse but little hurried, and not hard. Evaporating applications were made to forehead. Shortly after 4 o'clock she complained of her head feeling very large, and remarked that my size appeared to be greatly increased. Her head was hot and pulse fuller, with considerable firmness. I immediately bled her, until the sense of enlargement of the head was removed, and my figure resumed its natural

size. After this there was no further threatening, and she was safely delivered at 7 o'clock, A. M.

Mrs. W. was safely delivered in a fourth labor on 25th November. She did well until feverishness attended the early secretion of milk. She complained of her chamber being too dark, and at her bidding, the nurse arranged the window-blinds to admit more light. This answered as only a temporary benefit. Her sight being impaired, she directed a light to be procured. As she made no complaint of indisposition or pain, there was no special anxiety created. A large and handsome painting hung over the mantle, immediately in her full view. Her inability to discern the prominent points in the picture caused another light to be brought, and in a short time a third one was added. I was now sent for. I found her head hot, and eyes projecting; the pulse was very firm, but not full; the cervical vessels distended. She was perfectly rational, and complained of merely a fullness in her head. I directed the nurse to procure a wide basin. I made a large orifice in a vein of the arm, and the blood flowed in a full, rapid stream. I desired her to look at the picture over the mantle, and describe any apparent improvement in vision. After the blood had flowed to the amount of perhaps 10 ounces, she discovered points in the painting which were invisible before. I allowed the blood to flow, regardless of quantity, until she declared herself able to perceive the minute portions of the picture as distinctly as she could do in health. A slight tendency to syncope followed; she was afterwards purged actively. No further embarrassment to her recovery was experienced.

Mrs. H. was delivered at 5 A. M., February 12th, after an easy labor. Her habit was full, and her bowels had been torpid, although they were acted upon before the completion of labor. She did well until at my visit on the evening of the 13th, (about 36 hours after delivery,) when I discovered increased circulation and some headache. She made no special complaint. As a matter of safety, I directed the exhibition of a brisk, active purgative, and instructed the nurse to summon me if any necessity required it. I was called after dawn of day next morning, (14th,) and found her perfectly comatose. I received the following history: The lady declined taking the purgative, and the nurse acquiesced, without informing me of the lady's refusal. Nothing occurred to create apprehension, and at an early hour the family retired. The nurse awoke several times during the night, and remarked the apparently quiet and profound slumber of the lady. About day dawn she found it impossible to arouse the patient,

and then a messenger was dispatched for me. The coma was perfect, and notwithstanding our efforts, the lady remained entirely unconscious, and died early on the next morning.

10. *Puerperal Fever.*—Puerperal fever occurred in six of the patients, but as one of the ladies had puerperal metritis in three successive labors under my care, the whole number of cases would be *eight.* I need not enlarge upon this subject further than to detail a few cases, and comment upon the general plan of treatment.

Mrs. S. was the subject of the three successive attacks of metritis under my care. She was attended in her first labor by one of the most experienced accoucheurs in this city, but suffered a severe attack. Her second, third, and fourth labors occurred under my management, and although past experience induced great care in each successive pregnancy and labor, the disease could not be averted. In the last instance, it occurred on the eighth day after delivery. They all required active antiphlogistic measures, and all the attacks, happily, were subdued.

Mrs. B., delivered in second labor on 14th January, 1842. She suffered with severe abdominal tenderness and pain for three or four weeks before confinement. Bowels were distended, with flatus. After a restless night, she was taken early in the morning of 13th with irregular uterine pain. I saw her at 11 o'clock, A. M.; advised dry, warm applications to abdomen, and a dose of castor oil and laudanum. When it operated, it produced considerable tenesmus, and brought off one fœtid evacuation. In the evening pains had increased; examination discovered a head presentation; os uteri a little expanded, but quite soft. Much flatus in bowels. Administered a dose of calcined magnesia, which produced three watery stools, without amendment of pain.

At 12 o'clock at night the pain had made no progress of fœtus, and an enema of 60 drops of laudanum was administered. Os uteri a little more patulous.

8 o'clock, A. M.—Patient had some rest after the enema. Pains now are severe in sensation, but have no propelling effect on child. Os uteri quite dilatable. Vagina and perineum well relaxed; mucosity abundant. Head barely engaged in upper strait. A delay of one hour produced no improvement. Feebleness of pain was the evident cause of delay. The patient worn by her pains. Waters discharged. Administered 12 grains of ergot. Its action was apparent in five minutes, and the child was born in fifteen minutes from the adminis-

tration of the ergot. Uterus contracted well, and expelled secundines in forty minutes.

6 o'clock, P. M.—There have been few after-pains. Patient comfortable.

15th, 9 o'clock, A. M.—Complains of pain in uterus, with much flatulency of bowels. Ordered warm fomentations to abdomen.

6, P. M.—Just recovering from a chill. Pain diffused over abdomen, which is greatly distended. Some mental incoherence. Bowels not moved for forty-eight hours. Ordered a full dose of ol. ricini; continued fomentations.

9, P. M.—Oil acted once, and gave considerable relief; bowels less puffed; stool lumpy and fœtid; mind wanders occasionally; pulse 110; skin warm, and slightly moist; any motion produces pain; uterine globe very evident in hypogastrium, and sensitive to pressure. Lochia free. Prescribed calomel, camphor, and pulvis antimonialis, to be repeated every three hours. Black drops x, to be given *pro re nata.*

16th, 10, A. M.—One fœtid passage this morning. Had short slumbers during the night. Mind in a passively wandering condition. Lochia very moderate; abdominal pain reduced. Pulse 100. Prescribed 25 drops of black drop immediately, and repeat 15 every 1½ hour until sleep is induced.

7, P. M.—Has slept several hours altogether to-day. One nap of about 1½ hour's duration. Bowels distended; mind still unsettled; lochia scanty; pulse 89; skin nearly natural; no stool since morning. Ordered enema. As she has had but one dose (gtt. xxv.) of black drop to-day, the nurse was directed to administer 30 drops after the enema operated.

It is needless to pursue the history further. The free use of black drop (short of narcotism) was continued, with occasional means to allay the intestinal flatus, until the 21st, at which time medicines were suspended, and her convalescence was confirmed.

The fatal case of puerperal fever may be briefly alluded to.

Mrs. P. was confined June 4, 1840, with her ninth child. Was under the care of a midwife. The patient had been very costive, and the midwife allowed the labor to go on with an impacted rectum. She suffered from flatulent pain and unusually rigid soft parts. When I saw her, I directed the bowels to be emptied by means of enema, and a dose of castor oil to be administered. After the clearing of the bowels, the labor was still delayed by unyielding soft parts; she was bled ℥xvj. Relaxation presently followed, and the child was safely born. I was not requested to see her again until some seventy-two hours after labor,

when I found a well-developed case of puerperal peritonitis. The midwife had allowed her animal broths for nourishment, and directed her efforts mainly "to keep her strength up." The abdomen was now greatly distended, and exquisitely tender, with watery dejections from bowels. Pulse 120. On the 9th she vomited greatly, throwing up matter resembling finely-powdered charcoal. The case was badly nursed; her medicine was given with great irregularity, and she died on the 10th.

One case of puerperal fever occurred after a labor with twins, and, but for its being an isolated one, might be worth detailing. The point of interest is, that I had just returned from visiting a case of malignant erysipelas, when I was summoned to the labor. I had been called in consultation to visit a young lady nine miles from the city, ill with malignant erysipelas, and on my return to the city encountered a violent rain-storm, which completely soaked my gloves and thoroughly washed my hands. This, in addition to the washing given them before starting, would be presumed to have removed every infection of erysipelas. Upon reaching home, I found the message to the case of labor. This lady had a violent attack of the fever. After its appearance, I was careful to avoid contact with any of the secretions, and although five patients were confined quite shortly after this one, no other case of the fever occurred.

In regard to the treatment of the fever I may remark, that no one of the cases was bled after the appearance of the fever. They were purged early with calomel, and treated with liberal doses of opium, varied in form to meet any peculiarity of idiosyncrasy, and all, except the neglected case, recovered. The same general idea of treatment has been found equally beneficial in cases which I have seen in consultation.

11. *Engorgement of Cervix occurring during Labor.*—Mrs. H. was in her second labor on July 12th, 1837. The labor progressed slowly, both from inefficient pain and from an unusual indisposition in the os uteri to yield. The rigidity was not remarkable, but it remained at a certain degree of dilatation for several hours. The cervix was discovered finally to be hardening, and this condition increased to a degree of great engorgement and firmness, which effectually resisted any dilatation. A large venesection overcame the engorgement, and labor advanced to a successful termination for both mother and child.

12. *Impacted Rectum.*—It would seem almost impossible that an impacted rectum could obscure the character of a labor and create a doubt in the mind of an experienced obstetrician. Nevertheless, on

the 26th of January, 1839, I was called in assistance to a very judicious and experienced practitioner, whose diagnosis was exceedingly embarrassed by what proved to be the superior portion of the rectum impacted with fæces. It presented the appearance of an arm of a twin descending with the head of the advancing child, and, at the then stage of labor, was well calculated to deceive. The patient having insisted (which was untrue) that her bowels had been moved several times freely, in the beginning of labor, gave still more occasion for deception. A very careful examination gave a solution finally, and the cause of difficulty was removed by aperients, after which, the progress of the labor was rapid.

13. *Birth in Articulo Mortis of Mother.*—Mrs. M. in her third labor, child born on 4th of December, 1840. In the preceding October, I was called to attend her in an attack of dyspnœa, induced, without doubt, by long-continued torpor of the bowels. It was, however, relieved in four or five days by a persistence in aperients. She had suffered greatly from constipation during the entire pregnancy. In this attack, her pulse was very small, frequent and quick, and her expression of face indicated great organic suffering. Her relief was complete, and I saw no more of her until the 30th of November, when I was again called. At this time, I found her with indomitable vomiting, which commenced two days before. Her bowels had not been evacuated for a week, and the case presented unmistakable symptoms of volvulus. No appearance of any hernia could be detected. Pulse very small, and so rapid as not to be counted; fingers livid; respiration not greatly disturbed. On the 1st of December, a shriveling or wilting of the skin, as in the collapse of cholera, came on, without abundant sweating. On the evening of 4th December, she was dying. My mind was exercised about her child. Should it be removed by the Cesarean section immediately upon the death of the mother? I sat by her, anxiously watching. Laying my hand upon the abdomen, I discovered that the uterus was in action, and a vaginal examination detected the child progressing towards delivery. The action of the uterus was but little remitting, and the child was slowly but steadily advanced until it emerged from the vulva. The mother was in articulo, and survived but a short time. The child was dead.

14. *Frequent Special Presentations.*—Mrs. L. has had six labors; three were breech presentations.

Mrs. N. has had three labors; two were breech.

Mrs. B. has had four labors; two were breech.

15. *Frequent Twin Labors.*—Mrs. P. has had twins three times.

Mrs. K. has had twins three times.

Mrs. H. has had four labors; the third and fourth were twins.

16. *Mortality to Mothers.*—The total mortality to mothers in the one thousand cases was as follows:

One from placenta previa.

One from apoplexy, occurring about forty hours after delivery.

One from puerperal fever.

Abscess of the Abdomen—Gangrene of the Integument—Ascites; Spontaneous Evacuation of the Effusion through the Abdominal Walls—Peritoneal Fistula. By JOHN O. BRONSON, M.D., Lecturer on Surgery in the N. Y. Preparatory School of Medicine.

On Wednesday evening, September 17th, 1856, I was called to see Margaret B——, æt. 44, the mother of several children, and eight years a widow. She was a small, delicate woman, of nervous temperament and weak mental ability. Lying upon her bed, in a state bordering on delirium, with a countenance expressive of great anxiety, and apparently in severe pain, she presented the appearance of a woman in the parturient condition, suffering from some complication, inasmuch as her abdomen was eminently enlarged.

Upon making a proper examination, I found her abdominal enlargement was owing to ascites, and an abscess. Her bowels had not been evacuated for upward of two weeks; but as she did not at any time enjoy this necessity of nature oftener than once in a week or ten days, this should not be considered extreme, especially as she afterwards assured me she had allowed three weeks and even a month to elapse between her evacuations, without experiencing any discomfort. Nevertheless, to unload her bowels was an evident indication in the treatment to be pursued—an indication which received early attention in the administration of an enema of a solution of soap and salt, with molasses, to be repeated until the bowels were thoroughly emptied.

Upon making an examination of the abscess, I found it to be subcutaneous, about the size of the fœtal head at term, very prominent, and exhibiting on its anterior superior face seven superficial square inches of the integument in a state of gangrene.

The situation of this abscess was just below the umbilic, and a little to the left of the median line, the circumscribed induration being irregular, reaching entirely to the left ilium, and falling short of the right by more than two inches. This abscess appeared about

three weeks previous, and had been increasing gradually, giving no uneasiness, and exciting no apprehension up to the time of her summons to me, thinking, as she did, that it would take the course of a similar one which appeared about ten years before, in the same situation, matured, and was evacuated spontaneously. Through the centre of the gangrenous portion, which presented the most favorable point for evacuation, I passed a trocar, to ascertain the character of the contents. Through the canula flowed a greenish-yellow fluid, which seemed to be broken-down pus, containing many flocculi, and of very fœtid odor. Nearly two pints of this fluid were collected, being evacuated by incision. The formerly prominent anterior wall of the abscess collapsed, and resting upon the muscles beneath, presented a concavity equal to the previous convexity. The patient's pulse, which, when first noticed, numbered 130 per minute, immediately fell to 123, at which point it continued until the injection produced its effect, when it received a second diminution, and counted but 118, and had much improved in character, being less weak and less irritable.

Having prescribed for external use a lotion of the chloride of soda and a stimulating poultice composed of pulv. cinchonæ, two parts; pulv. zinziberis, pulv. rad. altheæ, each one part, and, for internal administration, wine whey and a pill containing two grains of the sulphate of quinine, and a tenth of a grain of the sulphate of morphine, to be given every two hours, I left, to return on the following day.

On Thursday, the 18th, eighteen hours from the first visit, the patient had slept a few hours, and was much more quiet. The pulse had fallen to 112. The gangrene was evidently extending. I ordered a continuance of the previous prescriptions, with additional wine.

On Friday, the 19th, the patient's condition was much the same, with a slight diminution in the frequency of the pulse, it being 108. The gangrenous action had encroached upon the sound tissues more than one-eighth of an inch in its whole circumference, thus adding about two inches to the already extensive destroyed surface.

The previous prescriptions were ordered to be continued, adding tincture of camphor to the poultice, and milk punch to be substituted for the wine whey.

On Saturday, the 20th, I found a great improvement in the patient. Her pulse was but 97. The gangrene was stayed, and at points suppuration had commenced. A continuance of the treatment was ordered.

On Sunday, the 21st, I was gratified to find the slough nearly separated, and a healthy action well established.

The pulse had diminished in frequency, and gained materially in strength. It numbered but 84 per minute.

On Monday, the 22d, the slough entirely separated, leaving a healthy granulating surface of more than nine superficial square inches in extent.

For two days the patient continued to improve in every respect, and the healing action progressed rapidly under the use of a very dilute lotion of the chloride of soda; the poultices having been discontinued shortly after the separation of the slough.

On the 24th, the interval between the administration of the pills was lengthened to four hours. No change was made in other respects.

On Friday, the 26th, the patient's pulse had come down to 78, and improved in strength and character.

No stools having passed, except by the use of enemata, since my first visit, I turned my attention to the condition of the bowels, and endeavored to ascertain the cause of the ascites. After diligent investigation, I concluded that a torpidity of the portal circulation was at the root of the matter, and consequently prescribed the following:

℞.—Podophyllin, gr. vi.
Pulv. capsici.
Ext. nucis vom., *aa.* gr. iii.
M.—div. in pil. vi.;

of which one was to be taken every night, or every other night, according to requirement.

On the 27th, ten days from my first visit, while dressing the ulcer, I noticed a gangrenous point, about one inch and a quarter below the umbilic, the size of a small pea. It was not superficial only, but deep, and I was at a loss to understand it. I increased the strength of the lotion, however, and hoped for the best.

On the following day the same condition existed, and although this local manifestation portended evil, the general symptoms were flattering. The patient continued to improve. The prescription of the 26th produced most satisfactory results.

On the 29th, I was greatly surprised to find that the slough had separated, leaving a communication into the peritoneal cavity, through which had escaped the ascitic fluid, bathing the patient from the mammæ to the pubis, and wetting the bedding above, around and beneath her. It was impossible to estimate the quantity of fluid, except from pre-existing appearance; judging in this wise, there must have been at least six quarts.

The fistula thus formed remained patulous, and the effusion continued to flow, passing away as rapidly as transuded.

The healing of the ulcer was not checked, however, and a cutaneous covering rapidly formed until it reached the fistula, a closure of which was not easy, if desirable. Various attempts were made, however, by means of astringents, stimulants, and compresses, but all to no purpose.

The effusion continued, though in diminished quantity, and by an occasional use of the podophyllin pills the action of the bowels was made regular.

Three weeks from her summons to me she was up and attending to her household duties, having in that short space of time recovered her strength and attained to such a degree of health as she had not enjoyed for a long period.

For four or five months the patient was under my observation, and though making use of various remedies to counteract the transudation, it still continued. Diuretics, cathartics, and deobstruents, individually and combined, served but temporarily to check the effusion. There seemed to be no relief from this irksome malady. The poor woman was obliged to wear some absorbing material continually.

The question of closing this peritoneal fistula was often presented and often met in the negative, inasmuch as it did not seem proper to dam up the stream while the fountain continued to flow.

For a period of more than a year the patient was seen from time to time, and the effusion continued unabated. Her general health improved, however, and became better, indeed, than it had been for several years.

The case was seen respectively by Prof. Henry G. Cox, Dr. W. F. Holcomb, Dr. C. A. Budd, and Prof. E. R. Peaslee, all of whom expressed themselves as to its being unique. One circumstance connected with the case marked it as peculiar. It was this. By certain movements, air was received into and expelled from the peritoneal cavity, producing at no time and in no way any unpleasant results. This peculiarity I think noteworthy, suggesting as it does certain practical ideas.

We have been taught and indoctrinated with the idea that the entrance of air into the serous cavities is an event to be always guarded against, as productive of most dreaded results.

Influenced and intimidated by this idea, many surgeons have shrunk from operations which, to say the worst for them, could only have been unsuccessful, while to abstain was sure death. With the disease

there was no hope of life. By the operation hope would have been rekindled, and death, for a period at least, set at defiance.

However injurious it may be to expose unaffected serous membranes to atmospheric influence, I am satisfied from observation, that it is far from hazardous to thus expose a diseased surface.

Indeed, I am of the opinion that it is necessary, in the proper treatment of some of the forms of disease affecting the serous cavities, to unhesitatingly lay them open. I refer now to some of the diseases affecting the articulations.

In inflammations of the joints we may have effusion on exudation, or both combined, giving rise to serous, purulent, or sero-purulent collections in the cavities. These fluids collecting in large quantities, materially aggravate the symptoms—give rise to excessive pain—and by distention of the tissues greatly interfere with the process of absorption by which we hope to remove it.

Were such proportionate quantities of fluid contained in any other cavity of the body, means would be speedily resorted to for its removal.

But according to the doctrines which we have been taught, unless the fluid be clearly pus, and pus only, it must not be interfered with. Nature must perform the task of removing it, and lest she be too slow or ineffectual, stimulants and alteratives are resorted to, with the vain hope of producing absorption—vain, I say, because in such a large number of cases it is useless to make such efforts. The poor patient sinks into a hectic condition, and to save the remnant of his life the diseased member is taken away; and maimed, he lives a witness to the imperfection of the science of medicine, and walks forth in every step declaring the perfection of the art of mechanism.

In many forms of ovarian disease the same vain, hopeful course is pursued.

The surgeon fosters the idea that alteratives and counter-irritants will produce most marvelous results, and though seeing no change, pertinaciously adheres to their use.

Failure ensues, and the dispirited patients seek advice from another, who, equally with his brother surgeon, shares in this fear of the bugbear clothed in serous membranes, recommends a similar course, and day after day passes away until the tumor, instead of being frightened at the iodine and its compounds, has gained in size, and formed such attachments that all hope of removing it is lost.

I would not be understood as counseling an indiscriminate slashing of serous membranes, but an intermediate course between that timid,

unsettled action which allows the afflicted to pass away, and that bold, unscrupulous course which drives the patient out from earth.

The peculiarities presented by the foregoing case induced me to make it known and to append the above remarks, believing, as I do, that sooner or later the ideas will meet with demonstration by those who are unwilling longer to tread the beaten paths of routineism, and determined to advance the science of medicine to that perfection which is demanded of an enlightened profession.

A Case of Placental Adhesion and Hour-glass Contraction. By Joseph Martin, M.D.

In the month of May, 1858, I read before the "New York Academy of Medicine" a paper on "Placental Adhesion as a Cause of Hour-class Contractions and protracted Labors." In that paper I have endeavored to prove that hour-glass, and other irregular contractions of the uterus, found after the birth of a child, always occur during labor, and are caused by placental adhesion; that such abnormal contractions uniformly cause delay, and can be diagnosticated before delivery; and that a knowledge of such deviations from the physiological process of parturition is important in determining the treatment during and after labor, in many cases of midwifery.

As illustrations of the views I have adopted, I, in that paper, related several cases; among the rest, that of a complete hour-glass contraction, the details of which show the true relation between adhesions of the placenta and irregular contractions of the uterus. I have recently attended the same lady, and a brief history of the case will prove the practical importance of a thorough knowledge of the pathology and symptoms of such abnormal adhesions and contractions.

On the 16th of May, 1859, I was called to attend Mrs. G., of Brooklyn, in childbed. The labor commenced at 11 A. M. The os was well open, and relaxed; the pains regular, but without force. At 10 P. M. the membranes were ruptured. For the next seven hours the head, which presented with the occiput at the left anterior iliac position, advanced but little; the vertex having not yet reached the hollow of the sacrum. The uterus lay far over to the right side, and was oval in form. The placental soufflet indicated a posterio-fundal attachment. It could be heard only at the middle and posterior part of the fundus, and at the left side. It should be here remarked, that

in the paper read before the Academy, I have shown, that when the placenta is firmly adherent to the walls of the uterus, the muscular fibres at the place of attachment cannot contract so as to lessen the size of the sinuses, and the placental soufflet, therefore, does not, as in physiological labors, diminish during parturition in harshness and loudness. I, consequently, consider an unaltered *bruit de soufflet* a diagnostic sign of placental adhesion. It will, however, be observed that, in this case, the position of the placenta afforded no opportunity to determine by auscultation whether it was adherent or not. The fœtal pulsation was distinct.

As the child's head, from 5 to 6 A. M., ceased to advance, the pains being very severe and irregular, I sent for Dr. Schapps, of Brooklyn. After hearing from me the history of her last confinement, and of this case, he examined her, and found that the child's head was not advancing; that the placental soufflet could be heard at the points indicated above, and that the child was alive. But he noticed the position and form of the uterine tumor, and also, that a mass of the intestine had to be pushed aside while he was auscultating for the fœtal pulsation. In reply to a question of his, I stated that, in this case, there were then no *reliable* signs of placental adhesion.

Having come to the conclusion that there must be some complication with the umbilical cord, and that the arrest of the head of the child was caused by an unusual mental excitement of the patient, we decided to defer operating until the afternoon.

For two hours after Dr. S. left, there was still no advance of the head, although the pains were still very severe. On *then* examining the uterine tumor, I found that the mass of intestine that had obstructed the auscultation of the fœtal heart on the left side, had passed over the anterior part of the body of the organ, forming a well-marked band, a few inches in width, which was shown to be intestine by its softness and elasticity on pressure, and the gurgling sound which was detected on auscultation; while the fundus, which had receded still further from the pubis, could be distinctly felt; and *now* the head of the child, after having been stationary for three hours, began to descend into the hollow of the sacrum at every pain. This band of intestine I at once concluded—and there could be no other conclusion —was lodged in a sulcus or depression which encircled the uterus. The diagnosis was now plain; for the existence of this sulcus, together with the further elongation of the organ, and the advance of the fœtal head, solved the mystery as to the cause of the acute, irregular and

inefficient pains. It was evidently a case of hour-glass contraction, with very great probability of placental adhesion.

As the occiput approached the arch of the pubis, it ceased to advance, and a *quick recession immediately followed* each pain, which, according to my observation, indicates the elastic reaction of a distended cord; and I then concluded that it was entwined about the child's neck, an opinion that was confirmed at its birth.

As the only mode of giving relief to the mother, I then passed one blade of the forceps over the occiput, and gently aided each pain. The head passed under the arch of the pubis at 11 A. M., 24 hours after the commencement of labor; and, although every precaution was taken to obviate the effects of the entwined cord, the appearance of the child showed that it had been asphyxiated for some minutes.

The hand was at once introduced into the uterus. The inferior half of the organ was moulded, by its firmly-contracted muscular fibres, into the shape of an inverted bowl, with the bottom removed, the os representing the mouth of the bowl. There was not, however, a perfect hour-glass contraction, for the hand passed freely through an opening leading to the fundal half of the uterus. The anterior and lateral parts of this opening presented a smooth, hard, semicircular edge, formed by the contracted circular fibres at that point, while from the posterior part a portion of the placenta was hanging loosely down into the lower chamber. The superior chamber contained much the larger part of the placenta, which was adherent to the posterior wall, and the part of the fundus near it. The mass was detached without difficulty, except at the centre of the fundus, where it adhered so firmly that I was compelled to leave small portions clinging to the surface. As no efforts would then excite uterine contraction, the placenta was removed, and the hand again introduced.

The whole upper part of the uterus was perfectly relaxed. Its posterior portion had fallen back, like a wet sack, and was filled with coagulum and fragments of the placenta, which I removed, after a fruitless effort to excite contraction. She was now vomiting, and nearly sinking from loss of blood. Brandy was freely and promptly administered, and the hand introduced the third time.

The bowl-shaped inferior half of the uterus remained unchanged since the first introduction of the hand. Not a muscular fibre that had, by its contraction, aided the mother in her last efforts to expel the child, had relaxed. But by a firm and careful manipulation externally and internally with both hands, the muscular fibres at the fundus at last contracted, the rigid semicircular constriction disappeared, and the

uterus assumed the size, form, and position that are usual after physiological labors. She had a good and speedy recovery.

This case proves:

1st. That placental adhesion is the cause of hour-glass contractions of the uterus.

2d. That such contractions take place during labor; and are the results of an abnormal action of the free uterine muscular fibres, excited by the efforts of nature to supply the place of those parts of the organ which are rendered inert or inefficient by the adhesion.

3d. That all such labors must be more or less protracted.

4th. That hour-glass contractions can be diagnosticated during labor.

It may also be inferred, from what is related above, that in similar cases, and under favorable circumstances, the forceps or vectis may be resorted to with safety to the child, and great relief to the mother.

On Microscopical Diagnosis. By ADOLPH VON DUEBEN, M.D. Translated, with annotations, by Prof. LOUIS BAUER, M.D., M.R.C.S., Eng., &c.

The great progress of medicine in the present century is pre-eminently the work of microscopical research. Our knowledge of the elementary structure of organism is exclusively based on the microscope, and modern physiology is its obvious result. The latter, again, furnishes the essential premises to pathology.

That organic chemistry has materially participated in this advancement, cannot be denied, however imperfect its contribution may hitherto have been. But the microscope has in practical usefulness obviously excelled the chemical reagents, both in precision and facility.

The exaggerated hopes placed in the infallibility of the microscope have certainly not been realized, for its application has its optical limits, beyond which its scientific and practical utility cannot be extended. To place implicit reliance upon the microscope, to the exclusion of other channels of observation, would lead to as much error and disappointment, as would its total neglect.

Whatever may be the present imperfection of microscopy, and the errors propagated by this method of medical investigation, its usefulness has been fairly demonstrated, and its practical results are such as to invite to perseverance.

Every method must naturally be deficient in its beginning, and will become gradually perfected by constant practice. The microscope,

however, as well as the method, has already attained an influence upon the development of natural science far beyond original anticipation, although its use is of but comparatively recent date.

In both histology and physiology, the microscope has firmly established its superiority. Through the medium of these fundamental branches it has benefited medical science at large. And of late it has begun to lend its material aid to diagnosis. Possessed with accurate knowledge of the anatomical elements in health and disease, the microscope will frequently assist us in disclosing obscure and otherwise imperceptible morbid changes. Sometimes it may delude and give rise to erroneous inferences, although the observer and the instrument used may be more at fault than the method. Yet more frequently it will reveal the true state of elementary structure, and its deviation from normality, and thus aid and correct our pathological knowledge.

The object of this compendium is a brief compilation of all microscopical *facts* appertaining to medical diagnosis, to the exclusion of all that is doubtful or hypothetical. And for such a compendium there is yet room in medical literature, notwithstanding the works of Hoefle, Beale, and others, which are either superseded by new discoveries, defective in their illustrations, or too voluminous.

Minute technicalities and detailed chemical analyses have been excluded, as not strictly belonging to the subject, although the author is fully sensible of their general importance, for satisfactory and correct conclusions can only be drawn from the controlling combination of all recognized methods of investigation.

The following general rules for microscopical examination may be found useful:

1. The *various* parts of objects, presenting marked differences even to the naked eye, should be carefully examined.

2. Each examination should commence with as low a power as the object will permit, and the latter should be retained in as natural a position as practicable. The power should then be gradually increased, and even the highest should be tested, if the size of the object will admit of it.

3. Different specimens of the same morbid material should be successively placed under the microscope, until conclusive results have been obtained.

4. The objects for examination should be fresh, and be observed in different conditions, so as to determine what is normal, morbid, or accidental. For the same reason false light and focus may be used,

in order to discern optical delusions. The greatest cleanliness is indispensable. The object-slides and lids are best cleaned with soft linen and chamois, and should be first examined for dust and fibres before being used.

5. The objects should be neither too large nor too thick.

6. The best light for microscopical examinations is derived from illuminated clouds or a clear northern sky. Argand lamps and sunlight may also be employed, when mollified by a plate of ground glass.

7. At the first examination of wet specimens the same fluid should be used by which they are naturally surrounded or endowed.

8. The following reagents should be always kept in readiness for use: distilled water, concentrated and diluted acetic, sulphuric, and nitric acids, and caustic potassa, sulphuric ether, and oil of turpentine. For ordinary purposes these will suffice.

9. It is to be recommended to the observer that he make drawings of all objects; note down their size, character, position, the magnifying power employed, &c. In doing so, all the details will be better understood and remembered.

I.—THE SKIN.

The results of microscopical examination in general upon the structure of the skin, the classification and diagnosis of cutaneous diseases, as well as its importance upon therapeutics, belong to Dermato-pathology, and are therefore not subjects for our consideration. This essay has to deal with microscopical diagnosis only. In this respect the microscope is invaluable, for the perception of certain parasites, vegetable and animal, infesting the integuments, and causing certain forms of cutaneous affections.

1.—EPIPHYTES.

A great variety of vegetable parasites of the lowest species has been observed upon the integuments, but comparatively few only are of pathological importance. Most of them seem to have been deposited by mere accident. Thus, for instance, Trichophyton sporuloides of Robin, observed in the secretion connected with plica polonica. Beschorner's very careful investigations into the nature of this endemic disease have removed all suspicion as to its communicability, either by the said alga or the presumed morbid secretion. The Trichophyton ulcerrans, found in an atonic carious ulcer by Lebert, and the otherwise most remarkable aspergillus species, discovered in the aural cerumen by Mayer and Pacini, seem to be of no greater importance. In fine, the Puccinia favi may be mentioned as occurring upon the

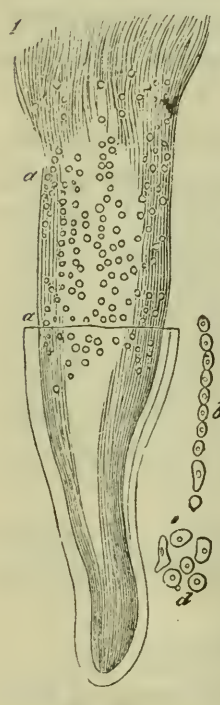
epidermal scales, in favus ardsten. Yet all these parasites present no other practical interest than their accidental and harmless existence upon the skin. Very different is it with those described hereafter, acting, as they do, as direct causes of cutaneous diseases, entering the follicles, folds, or wrinkles of the skin itself, irritating the latter, destroying the hair-bulbs, and eventually the hair itself, unless counteracted in an effectual manner.

(a.) Trichophyton Tonsurans. (Malmsten.)

This parasite belongs to the class of fungi, (Robin,) and its term is derived from *thrix*, hair, and *phyton*, plant, (Malmsten.) The adjective, tonsurans, is figuratively chosen, on account of the specific peculiarity of the parasite in destroying the hair in the centre of the scalp, like the tonsure of monks. The disease caused by this tribe of Trichophytons is named by Cazenave, Herpes tonsurans; by Malmsten, Rahizophyton Alopecia; by Mahon, Teigne tondante.

Both Boeck and Hebra are of the opinion, that Puccinia favi and Trichophyton tonsurans are, pathologically speaking, the same parasites, and that the effects of either differ only in degree, but not essentially.

The scalp, affected with this disease, exhibits *one* or *more round*, *dry*, *gray*, and slightly *elevated* maculæ, that seem to be thinly covered with fine dust. These spots are either bare, or occupied by a few, mostly split-hair stumps, and generally encircled by young hair and a moist brown-yellowish ring. A magnifying-glass will show a considerable number of hair stumps, broken off above the skin, their ends divided like a brush. If a portion of the gray dust is scraped off, and with some hair stumps, is put under the microscope, it will be noticed that the former consists of epithelial scales and fragments, besides innumerable spores of Trichophyton. In the interior of the hair-bulbs crowds of irregularly grouped spores (fig. 1, *aa*) will be observed, which, however, occasionally join each other like strings of beads, (fig. 1, *b*.) Their pressure upon the bulbs is so great as to atrophy and to destroy them. Where the sheath of the hair, and consequently its resistance, terminates, the parasite bursts the hair cylinder, and spreads luxuriantly over the surface. The hair is thus broken off, and



a fibrillated stump left, which in its turn is destroyed by direct pressure inside of the bulb.

Trichophyton tonsurans consists of exquisitely minute spores, of 0.003, 0.008, 0.0010 mm. diameter, each endowed with either nucleus or macula; some being constricted and branched, others putting forth regular buds The spores located within the hair-bulbs are flattened, evidently from their mutual pressure and the restraint of the fibrous sheath. Being, however, relieved from local restraint, and subject to the action of distilled water, they readily distend to a globular form.

The sebaceous material of the follicles should first be dissolved by oil of turpentine, and a power of from 400 to 800 should be used for their examination.

(b.) Microsporon Audouini. (Gruby.)

A fungoid growth of the same class and tribe as the former, but of distinct botanical species. The disease caused by this vegetable parasite bears great resemblance to herpes tonsurans, both as to its seat upon the scalp, as well as to its symptoms; it differs, however, widely from the latter, in its rapid development and destruction of hair. Cases are related in which the disease, in the short space of from 3 to 4 days, had produced bare spots of 3 to 4 centimetres in diameter. It is therefore considered a distinct morbid species, and severally termed Phytoalopecia, (Gruby;) Vitiligo, (Cazenave;) Porrigo decalvans, (Bateman.)

According to Robin, the spores of Microsperon Audouini are round, 0.001—0.005—or oval, and 0.002—0.008 mm. in size; consequently smaller than those of Trichophyton. They swell considerably in water. Moreover, the fungus exhibits numerous undulated and branched fibrillæ, forming anastomoses and a complete net-work, within which the spores are placed. This net-work has its seat upon the hair, surrounds their stems about 2 mm. from the epidermis, fastens itself about the hair, and breaks it transversely off. Gruby thinks that on the average about 8 days suffice to break an ordinary hair; thicker ones resist longer.

The microscopic examination of this parasite, the power to be used and the rules to be observed, are the same as with the Trichophyton.

(c.) Microsporon Mentagrophytes. (Ch. Robin.)

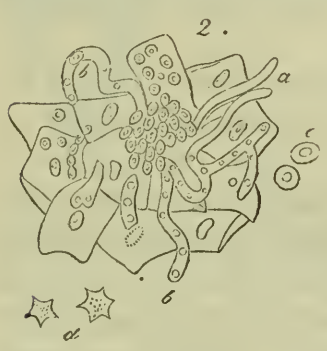
This parasite possesses almost the same botanical character as Micr. Audouini, exceeding it, however, in the size of its spores, filaments, and reticulated anastomoses. The Micr. Mentag. originates in the

hair follicles, outside of the hair-bulbs, and is distinguished thereby from Micr. Aud., which encircles the hair above the epidermis, and from Trich. Tons., which grows within the hair-bulbs.

Hitherto this fungus has been found in Mentagra (sycosis mentis) only, and Gruby ascribes the contagiousness of this disease exclusively to the parasite. Kuchenmeister is inclined to believe that the Mentagrum of Martial, and the Pudendagrum of Pliny, so frequent among the ancient Romans, originated with Microsperon Mentag. These cutaneous diseases had their seat between the chin and genital organs, and consisted in nodules and tubercles, and were of decidedly contagious character.

(d.) Microsporon Furfur. (Ch. Robin.)

This constitutes both the infectious and coloring medium of Pityriasis versicolor, and has its seat *between* the epidermal scales. In carefully scraping the so-called liver spots, and subjecting the substance thus obtained to a power of 400, it will be readily noticed, that it is made up of wrinkled and folded epithelial layers, with interstitial groups of spores, and a delicate net-work of fibrillæ, (fig. 2, *a*, *b*.) A more distinct view, however, may be obtained by adding a drop of solutio-potassæ causticæ, which renders the epithelium transparent, without injuring the parasite. The latter then exhibits numerous delicate fibrillæ of 0.001—0.002 mm. diameter, branching and anastomosing with each other. Some are quite hollow, (fig. 2, *a*, mycelium;) others contain nuclei and spores, (fig. 2, *b*, receptacula;) and others, again, show cell-articulations of 0.006 mm. Between the reticulated meshes the spores are imbedded. The latter are perfectly round, refract the light strongly, contain a delicate nucleus, measure from 0.001 to 0.002 mm., and show two contours with a false focus.



A patient, afflicted with pityriasis versicolor for four successive years, exhibited small multangular bodies, (fig. 2, *d*,) in great number; of puccinia favi, however, but one specimen.

(e.) Achorion Schœnleinii. (Remak.)

This fungus belongs to the class of Arthrospores, Tribus Oidiei, and forms, according to Link, a species of its own.

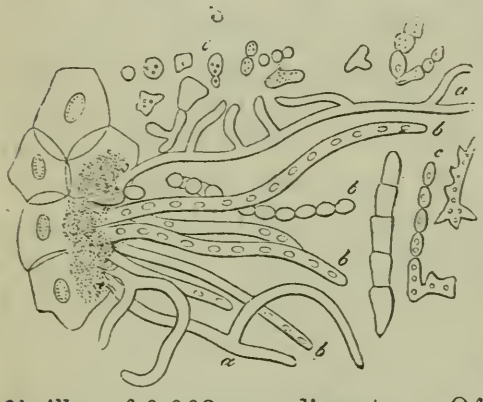
Bassis first directed the attention of the renowned Schœnlein, then Professor in Zurich, to the muscardine of the silk-worm, which

proved on careful examination to be caused by an achorion fungus. The analogy led Schœnlein to extend his researches to porrigo favosa, suspecting the same achorion to be the cause of that most abject cutaneous disease; and after a long search, with an imperfect instrument, Schœnlein finally succeeded in discovering the parasite, (1839.) Since then, and encouraged by Johannes Müller, the achorion has been repeatedly the subject of careful investigation, the results of which have been every way corroborative of Schœnlein's statement, in honor of whom the epiphyte has been named after its first observer.

The seat of Achorion Schœnleinii is chiefly on the scalp, but in solitary instances it is found on other parts of the body, such as the finger-nails. (Meissner.) Its transmissibility has been positively demonstrated by inoculation, (Remak, Bennet,) even upon an apple. (Remak.) And Bennet has also observed it upon rats.

The most correct description of this achorion species has been given by Robin, to which the author can add nothing but confirmation.

According to Wedl, this parasite originated in two ways. The ordinary growth is from the epidermis. Upon the delicate epidermal-scales a very thin, mostly transparent, layer of exceedingly fine and amorphous molecules are met with, which is the real matrix or stroma of the fungus. From this layer the Mycelium (fig. 3, *a*) puts forth its equally wide, unarticulated, curved and hollow fibrillæ of 0.003 mm. diameter. Often, the cylindrical cavity extends into the branches of the Mycelium, but occasionally their cavity is found to be separated from that of the primitive stems. Another, but very analogous part of the fungus, are the receptacles, (fig. 3, *b*,) fibrillæ of different sizes, less curved, and unbranched.



The smaller Mycelium-fibrillæ have only towards their free ends one or two incipient spores, whilst the larger fibrillæ are filled with more developed ones, imperfectly separated from each other by contraction of the fibrillæ. Their size varies from 0.005—0.007 mm. The third degree of development, or 3d part of the achorion, are the spores themselves, (fig. 3, *c*,) either spherical in shape by 0.003 to 0.007 mm. in size, or oval by 0.001 mm. in length. Quadrangular forms with

subdivisions may also be noticed; moreover, they contain occasionally numerous exceedingly small granules, with molecular motion. In the larger and spherical spores there is one nucleus, and in the oval ones there is generally one to be noticed on either extremity. The examination should be made as previously suggested, and with a power of 400 to 600; although the larger fungi may admit a much lower power than that, and have actually been seen by a power of 150.

4.



The exceptional growth is in the shape of isolated or connected spores in the hair follicles, gradually encircling and finally perforating the hair-bulbs. (Fig. 4.)

As has been already stated, achorion Schœnleinii is now admitted to be the ostensible cause of Porrigo favosa, the medium of its transmission. Relief from this disease demands the total eradication of the parasite.

2. Epizoes.

The same remarks, appertaining to the various epiphytes observed upon the human body, are applicable to animal parasites. Among the latter, there are specimens which have not the least pathological importance, being either accidentally deposited or attracted by uncleanliness. Pulex irritans, phthirius inguinalis, Leach., (pediculus pubis, Lin.,) pediculus capitis and vestimenti, belong in this category.

Older medical writers have variously alluded to and described a disease under the name of phthiriasis, alleged to be caused by the presence of a peculiar species of pediculus, (tebescentium;) and even of late several cases have been related, purporting to confirm the ancients. Among others, an instance is put on record by Dr. Ekman, of Colmar, (Laek., Saellsk., Faerhandl, 1851.) However this may be, it does not seem as if in modern times a disease had been observed even approximatively corresponding with the description of our professional ancestors, to wit: formation of small tubercles, in which pediculus generate and multiply to an unlimited number, resisting cleanliness, baths, etc., and gradually leading to tabes and death. Some later observations, under the head of Phthiriasis, indicate the nature of the error formerly committed; and it is now well understood that the parasitical arachnoideæ of domestic animals transmitted to the

skin of men, will produce effects very similar to those ascribed to that disease. Thus Vogel (Path. Anat., page 414–415) relates as facts, that the various acarus species of horses, dogs, wombat, cats, rabbits, camels, etc., have produced cutaneous eruptions upon the human skin not unlike scabies; and Bory de St. Vincent has described a peculiar acarus, which was observed in great numbers on a woman, without transmitting the affection to her husband; furthermore, that the same acarus has been seen by Busk, on the foot of a sailor. These are, however, indefinite representations, relating to cases in which parasites had infested the skin by accidental communication with animals. More positive is a case of phthiriasis observed and related by Simon, of Berlin. A woman, despite the



Fig. 5, pediculus vestimenti, (female.) Fig. 6, pediculus capitis, (male.)
Fig. 7, phthirius pubis.



Fig. 8, dermanyssus avium.

strictest cleanliness and the application of remedies, had suffered for a long while from numerous small animals, very like the pediculus tribe. The parasite, when properly examined, was recognized as dermanyssus avium, a peculiar acarus of birds, derived in this instance from chickens. Still more decisive is the case of Erdl, which could

have been much easier mistaken for phthiriasis. In examining some cutaneous nodules, not unlike moluscum contagiosum, Erdl found them to contain dermanyssus. Nitzsch presumes that this parasite can enter the skin of birds, and believes to have once observed this fact in a green finch.

But all this tends to demonstrate that the louse-tribe lives upon the human skin, and not *within* its texture.

For comparison, however, the diagrams of the various pediculus species and the dermanyssus avium have been annexed. (Fig. 5–8.)

Dr. Lorenz Tutschek, in conforming to the author's opinions, adverts to the so-called harvest flea, (Leptus autumnalis, fig. 9,) living on dry grass, berry bushes, etc. Coming in contact with the skin, they bore themselves in with their heads, and cause itching, nodules, pustules, and even superficial ulcerations. Prof. Emmerich could discover no ducts under the epidermis; and Jahn is convinced that this insect inserts itself into the skin but a day or two, and leaves it again spontaneously, without further consequences. Leptus autumnalis can be readily diagnosed by its yellow-reddish color.



There are, however, two parasitical arachnoids deserving special attention. One is the known cause of scabies, and the medium of its diffusion. The other has been often observed as a resident of cutaneous follicles in acne pustules, though its pathological relations have as yet not been clearly determined.

(a.) Sarcoptes Hominis. (Figs. 10–13.)

The ancient Arabs seem to have had some knowledge of this parasite. Later zoologists have sometimes adverted to and described this arachnoid. Linnæus received it into his *systema naturæ*, and gave it the name of *acarus exulcerans*. From numerous references, it can, however, be demonstrated that little was known of its significance in regard to the human body until Renucci, the Corsican, in 1834, disclosed the mode of its detection in the skin. Since then, sarcoptes hominis has been the subject of numerous investigations, and both its natural and pathological history has been ascertained to a rare degree of perfection. The fact has thus been established beyond dispute, that the presence of sarcoptes, or its sub-epidermal duct, are the only pathognomonic or reliable evidences of scabies. In infants or patients

with a delicate epidermis, those ducts can be easily found. Not so in persons of advanced age, or laborers, whose skin has, by exposure, become firmer or discolored.

The principal seat of this parasite is the hand, (80 per ct.) and it is but rarely observed on the feet, axillary cavity, and trunk, (20 per ct. Bourguignon.) The ducts can best be seen and examined between the fingers or on the volar surface of the wrist, the skin being there comparatively more delicate. Frequently, they can be seen with the naked eye, but more readily with a magnifying-glass.

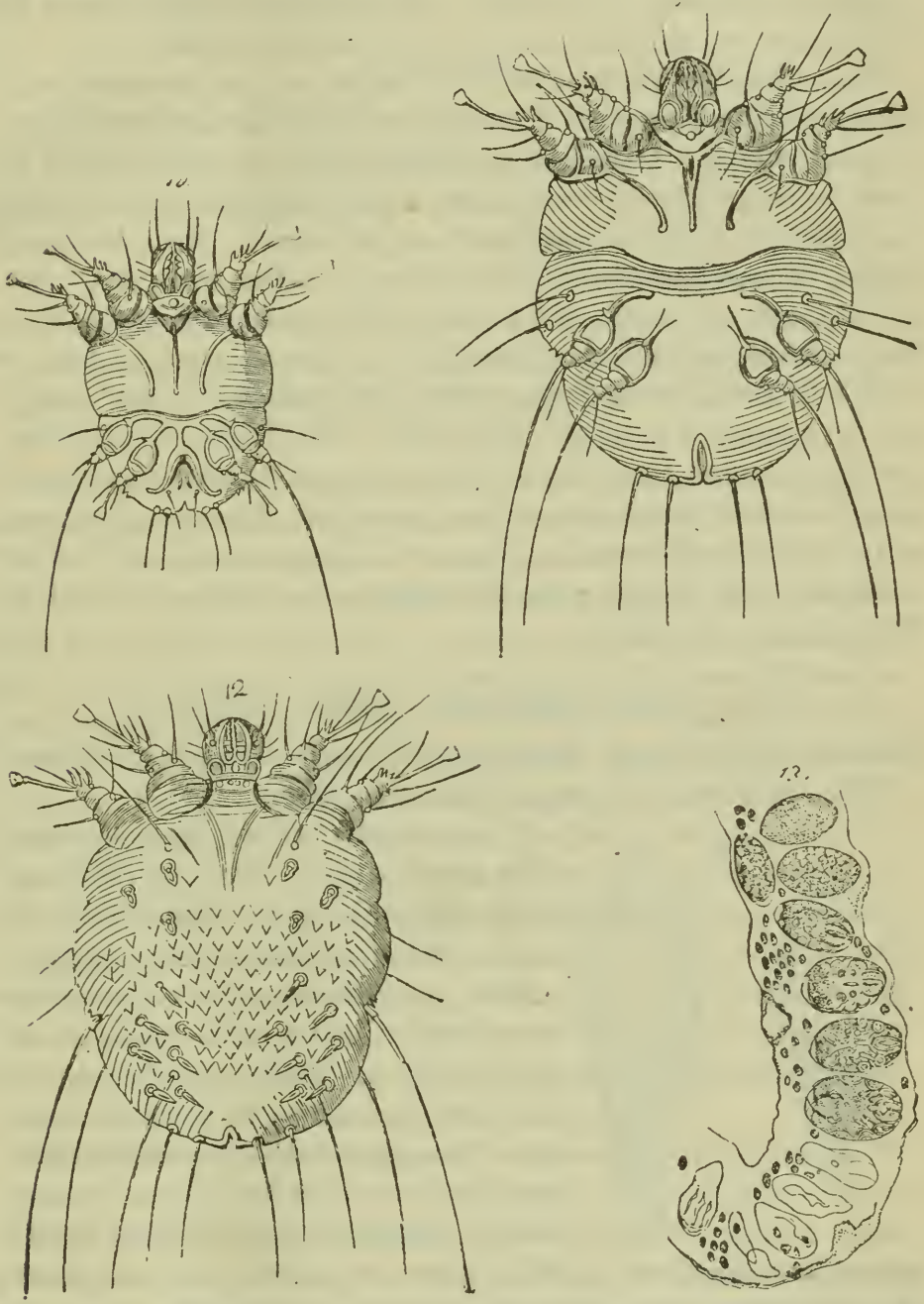
The ducts appear as slightly curved and elevated lines of lighter color than the surrounding skin, sometimes with a bluish tint, and as if filled with water. Their length rarely exceeds a few lines. At one extremity of the duct, there is mostly, but not always, a small vesicle or papula, and this is the place where the sarcoptes enters. The other extremity terminates in a whitish point, being the animal itself. With an ordinary or cataract needle, the duct should be split towards its blind termination. On withdrawing the instrument, the parasite mostly adheres to the point of the needle, and when placed upon a black object, its locomotion may be discerned.

In this simple manner sarcoptes may be found, and thus a reliable diagnosis secured. But for the study of the natural history of the parasite, the method of Eichstaedt, Hebra, and Gudden, should be adopted, consisting in the removal of the epidermal wall of the duct. For this purpose, the skin should be superficially raised in a fold, and removed either by a pair of bent scissors or a sharp knife. The object is then spread upon a glass plate, the raw surface upward, and gradually suffered to dry. So prepared, the object is to be covered with concentrated mastic varnish, and examined under the microscope. The duct is then perfectly transparent and its contours extremely delicate.

The ducts contain only female sarcoptes. The males reside in their immediate vicinity; (worms,) shine through the skin, and require, on account of their lesser size, the use of a magnifying-glass. The male sarcoptes causes less irritation of the skin than the female. In order to bring him under the microscope, the method of Eichstaedt is indispensable.

With a power of from 150 to 300, locomotion and the anatomical construction of the parasite can be readily observed. The largest ducts are occupied by, and filled with impregnated female sarcoptes, ova, and excrementitious matter. (Fig. 13.) They measure one-third millimetre in length and one-quarter millimetre in width; are of oval form, with a flat belly, (fig. 11,) and a convex spiny back, (fig.

12.) The head is short set, has lightly dentated jaws, upper and lower lip, and eight legs, of which four are near the head, ending in sucking cups or disks, and four more posteriorly inserted, each terminating in a bristle. Both size and shape vary according to the parasites being pregnant or not. The male is smaller, one-fifth millimetre long, one-seventh millimetre wide; his hind legs sit closer to each other, and two exhibit the same disks as the fore legs. (Bourguignon. Fig. 10.)

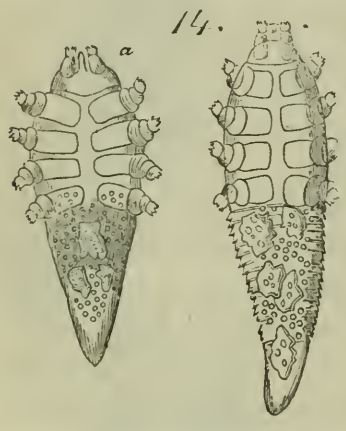


It is further stated by the same author, that the males are not so numerous as the females, (1 to 10,) and that his mode of life differs from that of the latter. His locomotion is more rapid; he creeps along the skin, and is capable of boring himself in within the space of fifteen minutes; digs no passages, and during the night leaves his hiding-place and visits the females in their respective nests.

The contagious nature of scabies depends on the transmission of sarcoptes of both sexes, or of a pregnant female, from individual to individual patient. It follows, conclusively, that a single virginal female or male sarcoptes would not lead to a perfect form of itch, and hence the diagnosis might find some difficulties. For, as already stated, the non-impregnated female sarcoptes makes but a short duct, and the male none at all, and a most careful examination of the whole body, with the aid of a magnifying-glass, is often necessary to find the parasite. Bourguignon suggests, with some probability, that prurigo may be occasioned by single individuals. And Boeck, of Christiana, describes a crustaceous form of scabies, characterized by thick, white-gray, and hard scabs, upon red and excoriated skin, extending even to the nails, in which he found numerous dead sarcoptes, ova, and excrements of the animal. Similar instances have been recorded by Fuchs, Rigler, and Hebra.

(b.) Acarus Folliculorum. Simon. (Fig. 14.)

Demodex follic., Owen; Macrogaster platypus, Miescher; Simonea follic., P. Gervais; Steatozoon follic., E. Wilson.



This parasitical animal was discovered about the same time, (1842,) by Henle and Simon, and subsequently described in Johannes Muller's Archives of Physiology.

First, it was found in the inflamed sebaceous follicles of the skin, (Acne;) but subsequently, in healthy follicles also, in which they seemed to be perfectly harmless. The question as to its morbid effects upon the human skin has, as yet, not been decided, although the case related by Remak (Kuchenmeister, p. 377,) seems to indicate that the acarus follic., under favorable circumstances, may exceptionally become the cause of morbid action.

Most frequently the acarus follic. is found in the follicles of the nose, lips, forehead, cheeks, the external meatus of the ear, and behind the ear,

the chest and back. A well-developed follicle should be forced out, the sebaceous cylinder spread on glass, and observed with a power of from 150–300. They can be found most easily in bodies by taking vertical sections from follicles. Their form and the number of their feet vary from three to four pair.

(c.) Infusoria.

Of these microscopical epizoes, a great variety are found in wounds and moist places of the skin. Their presence, as far as our knowledge goes, has no pathological interest.

On Intra-Uterine Operations. A paper read by invitation before the New Jersey State Medical Society, at Trenton, Jan. 28, 1859. By A. K. Gardner, M.D., &c., New York.

No work written within the last half century has done so much to enlighten the profession in regard to uterine pathology and therapeutics, as "*Bennet's Treatise on the Inflammation of the Uterus, its Cervix and Appendages,*" originally published in 1845. Its first effect was to separate symptoms from disease; and in the same manner that we now recognize abdominal dropsy—once considered to be a distinct malady—to be either a symptom of disease of the heart, liver, or kidneys, the result of local inflammation of the peritoneum, or the effect of pressure of uterine or other tumors upon the large vessels—so, by the teachings of Dr. Bennet, we recognize leucorrhœa to be not a peculiar disease, but the symptom of various disturbances: as of ulceration of the cervix, exteriorly and interiorly, a simple result of the pressure of a fœtus or tumor in utero, of impacted fæces, or a fibrous tumor in the rectum, and of many other difficulties. The various causes of this frequent symptom being recognized, it has been found easy to apply the appropriate remedies, and leucorrhœa is no longer numbered among the *opprobia medicorum.*

While most medical writers, since the time of the issue of this work, especially in England, have spent their energies in ridiculing and denying the propositions enunciated by Bennet and his coadjutors, many advances have been made in the diagnosis of hitherto obscure uterine affections; new instruments, both for exploration and the application of medicaments, have been invented, and new remedies have been proposed. It is my intention to gather these *membra disjecta* together, and with such new ideas as have occurred to me from my own practical observa-

tions during the last fifteen years devoted to this specialty, to present them to the learned body which has honored me with an invitation to address them, in a succinct manner, with little regard to graces of style or adventitious ornament. If I may chance to draw renewed attention to a class of maladies still imperfectly understood, with the effect of strengthening the hands of those weary in attempting the cure of diseases difficult to diagnosticate, difficult to reach, and far more difficult to cure—if I may fortunately make a single point which shall serve as a starting-place from whence other investigators may go on to new discoveries for their own immortal glory and the benefit of all futurity—then the aim of the present speaker will, indeed, be fully attained.

Passing by the simple ulcerations of the os uteri, about which something might be said as regards the varieties of treatment adopted, I will speak of some of the diseases which occur higher up in this organ, their symptoms and treatment.

There is a class of patients, generally the nervously irritable, whose occupation is in-door, and sedentary, who complain of pain in the back and loins, nausea and irritability of stomach; who, under the influence of excitement, are capable of great bodily fatigue, followed usually by extreme lassitude; generally very regular in their periods of menstruation—sometimes a trifle too profusely, in some cases rather sparingly, and generally accompanied by considerable pain—who present many of the symptoms which lead the practitioner to suppose that it is an ulcerated disease of the os uteri, as described by Bennet, under which the patient labors. Upon a physical examination being instituted—frequently obtained only after much urging, and sometimes by the positive statement that ulceration of the cervix is the certain cause of all the difficulty, that it can be surely and speedily cured by a few applications of a little painful nature—when the educated finger is introduced into the vagina, the attendant feels no enlarged and distorted cervix, no soft, unctuous surface, and the speculum but endorses the opinion too certainly made, that there is no ulceration. But the doctor, disliking to eat his words too frequently, persists in his first statement, and his failure to effect the promised cure, very often not only injures his own reputation, but throws discredit upon the profession to which he belongs, not unfrequently driving the patient to seek for relief from nostrums or quacks.

In many of the cases above mentioned, often seen among the wealthy and inactive, a more rigid examination will show a softening around the os uteri externum, in some cases extending not more than

two lines from the meatus; easily recognizable in many cases by the finger of the careful examiner, seeming as if the finger might be forced into the evidently somewhat enlarged canal. But this is impossible, and the firmer the pressure is made, the harder the tissue seems to be.

Through the speculum this softened portion seems somewhat deeper in color than the surrounding membrane, which has a perfectly natural appearance. The os seems larger than natural, and frequently a drop of limpid or slightly reddened albumen pushes out from the orifice. In other more marked cases this albumen is secreted in larger quantities, and flows quite freely, when all the symptoms are magnified correspondingly. The uterine sound passes with the greatest ease up to and often through the os internum, (and sometimes the canal is evidently not only preternaturally pervious, but also augmented in length.) The entrance of the sound not unfrequently excites an increased flow of colored albumen, or fresh blood, and is followed upon its withdrawal by a copious stream, no matter with what care the instrument may have been handled.

The uterine sound has in this variety of cases made the diagnosis. We have a subacute or chronic inflammation of the mucous lining of the cavity of the cervix, which is aggravated at each menstrual epoch; which no washes can reach, and which neither scarifications, leeches, nor caustics upon the exterior of the cervix uteri, will benefit.

I have now a lady under treatment 30 years of age, married, and childless for 14 years, who suffers agony monthly; who has the os and cervix uteri of a virgin, as healthy to the eye as ever was seen, save the cicatrices from scarifications and leech-bites, applied without the slightest benefit. What is to be done for such cases?

Not unfrequently this chronic inflammation is not limited to the cavity of the canal of the cervix, but is also continued into the cavity of the body of the uterus, constituting endo-metritis. This is recognized by an enlarged condition of the uterus, evinced by the length which the sound can be inserted; by its perception to the touch through the rectum, while the other hand explores its dimensions through the parietes of the abdomen; by its increased sensitiveness; some symptoms of prolapsus from its augmented weight; and frequently by the very large leucorrhœal (albuminous and mucous) exhalations. Whitehead gives us the only symptom revealed by the speculum, the presence of a "bright red ring surrounding the verge of the os uteri."

When this subacute inflammation is confined to the lower portion of the canal only, and thus necessarily of small extent, it may be

reached by a stick of nitrate of silver, and a very few applications will cause the disturbance to entirely disappear. It has been recommended by Whitehead and others, to inject a solution of this caustic into the uterine cavity, or as far up the uterine canal as may be necessary. (See my work "On the Causes and Curative Treatment of Sterility," in which I have described an instrument adapted for that purpose, which I have frequently used.) But the extreme danger, and the constant accompaniment of most agonizing pain waiting upon every operation, have obliged me to desist from the use of any liquid applications to the cavity of the uterus. Experience has shown that the injection of any liquids—pure water or the blandest oil—has been followed by the same results; and latterly I have used the following ointment:

℞.—Nitratis Argenti, (crystals,) ʒii.
Ext. Belladon. ʒi.
" Stramonii, ʒss.
Sulph. Morphiæ, grs. v. to x.
Ung. Spermacet. ℥ii. M.

This ointment I inject into the cavity of the neck or the body of the uterus, as the disease may be; and it is most noticeable, that while a half drachm of fluid is productive of such extreme pain, this ointment, except in persons of marked uterine sensibility, rarely produces any unpleasant sensation. When the pain is felt to be excessive, I allay it by a suppository of two grains of opium, inserted in the rectum, and increase the morphia in the recipe as may be found advisable.

The instrument with which the ointment is inserted is a metallic tube fitted with a piston, and may be filled with such an amount of the ointment as may be desired. It is to be passed along the side of the finger till it reach the os externum; then, carefully inserted, it is to be pushed up as far as it will easily go, (if the cavity of the body is diseased, the os internum will be relaxed,) and when arrived at the desired point, by pushing in the piston the contents are evacuated, which speedily melting, effectually medicate the diseased tissue. This ingenious instrument is the creation of my friend, Dr. Fordyce Barker, who has proved its efficacy in repeated instances.

I may also mention in this connection, that this intra-uterine treatment will also be found of great service in the profuse menstruations and intermediate hæmorrhages which so frequently follow abortions. A marked instance of this character, which I saw in consultation with Dr. Dalrymple, of New York, is fresh in my memory, but as time will not permit me to authenticate the various statements made in this paper, I shall pass it by with this simple allusion.

Stricture of the canal of the cervix, a cause of dysmenorrhœa and sterility, is very easily overcome by the uterine sound, by the graduated sounds of Simpson, by sponge-tents carefully applied, and with a due regard to the exigencies of each particular case—when the case is uncomplicated, when it is a simple contraction of the calibre of the canal, the result of inflammation; but when it is mechanical, the contraction being due to the doubling of the canal sharply upon itself, caused by a coexisting ante or retroflexion, or when the stricture is due to the presence of small fibrous tumors, so developed in the parenchyma of the body or cervix of the uterus as to mechanically obstruct the passage, then relief is not so easily afforded.

In the doubling of the canal by the flexions of the uterus, resulting in simple mechanical stricture, the ordinary uterine sound made of hard metal will frequently be found incapable of introduction, for a strait instrument will not pass through this curved passage unless the uterus is straightened by the pressure. This is not easily effected; sometimes from the stiffness of the uterus, sometimes from the catching of the point of the instrument in some of the mucous crypts and sulci, or the cervical rugæ, the reduplications of the lining mucous membrane. For this purpose it is necessary to have a sound made of pure copper, galvanized or not with silver, which can be bent and re-bent as desired. By the use of this instrument, curved at the smallest arc possible, and this being gradually straightened, the uterus may ultimately be restored to its normal position; and finally, by wearing a stem-pessary, may be retained in this situation till the tendency to displacement is overcome.

If, however, the uterus has been in this abnormal position for any length of time, then inflammation, more or less acute, has occurred, and at one or more points there have been deposits of fibrin, which have made a stricture which will not be overcome by a change of position, and which will even bind down the uterus to the position into which it has fallen, so that it is impossible to restore it to the normal situation. I know of no method of curing this stricture but the knife. By careful manipulation, a probe-pointed knife, or a Simpson's concealed bistoury, may be passed through the stricture, and withdrawing it, the stricture may be completely divided. This operation is effected without pain, although sometimes followed by very considerable hæmorrhage, which may be arrested by tamponing the cervix and vagina.

Should the stricture arise from a small fibrous tumor developed in the stroma, an incision down upon it from the canal outward, will

allow the tumor to push itself out into the canal, thus enucleating itself, when, after this is effected, if small, it may be scraped away with the curette of Recamier, twisted off with a torsion forceps, or cut off, as most convenient. These operations are of a delicate nature, requiring careful manipulation, and, from the delays between the various steps, are often tedious and vexatious.

I have enumerated but the general heads under which stricture of the canal of the cervix may be classed. The varieties of cases which come under these generalities are numerous, giving those who are specially engaged in treating these kind of cases constant variety, and a renewed demand for study and ingenuity. It is to be hoped, with increased observations, that new classifications of this perplexing difficulty may be made, which shall lead to new and more certain methods of diagnosis, a more facile mode of exploration, and speedier and more certain means of cure.

The instrument which I here present I have invented for the purpose of facilitating these operations. It is manifold in its character, but its principal feature is the movement which can be given to the end, thus facilitating the entrance of the sound into the uterine cavity, raising the uterus from its flexed condition without any withdrawal of the instrument, applying the knife in any desired position, applying caustic at any angle, &c. (See Tyler Smith's Obstetrics, Am. ed., p. 198.)

We pass now to the consideration of *intra-uterine polypi.*

The existence of intra uterine polypi is no new discovery, for they were observed and described before the middle of the 18th century. Their existence is easily recognized when large, but to the important point of their diagnosis when small, modern science has afforded much assistance. When our attention is drawn, by reason of persistent hæmorrhage, coming on at irregular intervals and in large gushes, to the state of the uterus, and we discover it much increased in size, the os partially admitting the finger, we can get much aid from the sound which tells us the dimensions of the cavity, whether or not filled by a solid body, and perhaps the point of its union with the uterus and its size at its junction. But when we are not able to obtain this information, we have recourse to sponge-tents, with which in many cases, (in not all, however,) by persistence, we can dilate the os uteri so as to thoroughly explore the uterine cavity. If we then find a fibrous or other form of polypus, we need have no great difficulty in twisting it off, if small, by means of torsion forceps; if larger, by passing the chains of an écraseur around it, and thus amputating it; strangulating it by ligature, or cutting it off with bistoury or scissors.

There is some diversity of opinion as to the manner of separating tumors from the uterine wall. Ordinarily, they may be cut off with scissors or bistoury, without much regard to the hæmorrhage, unless the patient be so reduced that the slightest loss of blood is to be avoided. The substance of the fibrous tumor is very rarely permeated by blood-vessels, which, however, are ramifying and freely inosculating upon its exterior surface. A pledget of lint, wetted in the tincture of Benzoin, placed upon the cut surface, and a tampon in the vagina, will remove any danger from excessive hæmorrhage. The danger from pyæmia from the absorption of the débris from the suppurative destruction of the polypus when ligatured, is avoided by the removal by incision, which is a consideration of no little importance. The écraseur of Maisonneuve is a compromise between these two methods, but open to the objection, that instead of a smooth-cut surface, it leaves a ragged and crushed surface, which will heal only by granulation.

If the polypus be fibrous, and so large as to render such operations impracticable, the body is to be seized by hooks, hooked forceps, or even with an ordinary obstetric forceps, and forcibly drawn externally, and there subjected to such operation for its removal as may be deemed advisable. The force required for thus extracting an intra-uterine polypus is so great as not only to displace the uterus from its situation, so as to bring it down upon the perineum, but it also necessarily inverts it, in order to expose the point where the pedicle unites with the uterus. Upon this pedicle being cut, the uterus often returns to its natural position with an audible snap, like that made by the hollow india-rubber ball of a breast-pump or syringe, when the pressure upon its sides is removed and it suddenly resumes its natural position.

Sometimes, however, we find that the enlargement of the uterus is not due to a pediculated tumor which hangs from the uterus, but we have a fibrous tumor developed in the uterine stroma. Sometimes this is found to be immediately under the mucous membrane; but even if it is not so superficial, the best treatment—if any treatment is necessary—is to cut down upon it, making a deep incision through the mucous membrane of the uterine cavity, through any intervening tissue, down upon the tumor. It is better that the incision should penetrate the tumor than not to attain to it, for the fibrous tumor being bloodless, no ill result can ensue We expect a double result from this incision. We take off the pressure—the cause of the hæmorrhage—by cutting through and thus destroying the congeries of enlarged and congested vessels enveloping the tumor; and secondly,

we allow the tumor to enucleate itself, and thus to transform itself into a fibrous polypus, permitting, at some after period, an easy removal by any of the means already mentioned. It is to be hoped that some subacute inflammation may take place in the tumor, resulting in a suppurative disorganization, for we know the marked tendency that fibrous tumors of the uterus have to degenerate when disturbed. This is especially noticeable in those tumors which accompany pregnancy, and which, when injured by the pressure of parturition, and perhaps deprived of some portion of their accustomed nutriment by the arrest of the uterine circulation consequent upon the return of the uterus to its natural size, and the closure of the uterine sinuses, degenerate and slough away.

The secondary effect of this incision, even if not successful in the main purpose of effecting the enucleation of the tumor, is to diminish the hæmorrhage, at least temporarily. That, attendant upon the operation, is easily controlled by the tampon or the colpeurynter.

It should be especially borne in mind that, in all intra-uterine operations, the season for their employment should be selected with particular reference to the usual period of menstruation. Even if the menstruation has been absent for several months, being arrested by debility, or perhaps confounded with the hæmorrhages which have occurred irregularly, yet the *molimen menstruale* is still present, and might seriously affect the success of the operation.

In this connection I must allude to a proposition made by Dr. H. R. Storer, of Boston, which is distinguished for its boldness, but which seems to be of questionable practicability. It is the injection of powerful caustics, as the hydrate of potash, into the uterine cavity, for the purpose of destroying polypi and sessile tumors, when it is impossible to effect their successful removal in any other manner. Dr. Storer claims to have succeeded in this manner.

It ill becomes any one, in this age of wonders, to refuse to accept, without a trial, a statement from any one distinguished for the ability and honesty which characterize Dr. Storer, on the ground of its improbability, or of some supposed danger. There are, unfortunately, abundance of hopeless cases, at present, which cannot be injured by any treatment—to whom death, even, would be welcomed. We have abundance of opportunities for any trial which gives a shadow of hope. Much as uterine pathology has advanced in the last fifteen years, may we not hope for further and more distinguished additions to our knowledge during the coming similar period? Shall we receive the talent that is given us, and hide it in a napkin?

On a very Important Characteristic Sign in the Medico-legal History of Attempts at Rape. From the French of Dr. Legrand Du Saulle.

That criminal attacks on very young girls have become very frequent lately, not only in the great centres of population, but also in the country, is apparent to any one who casts his eyes over a judicial journal. In view of the medico-legal difficulties which swarm, so to speak, about the steps of the practitioner, it is our duty to collect and propagate all the new facts which science produces, and which are really calculated to guide experts in their investigations, and to shed new light on the results of these investigations. With this object in view, it is proposed to direct attention to a particular mark which is very often observed in little girls who have been several times exposed to attempts at rape, or have prematurely given themselves up to corrupt habits—we refer to the infundibuliform depression of the vaginal orifice.

It is an easy matter to obtain a tolerably accurate observation of this vulval deformation. In fact, the genital organs of children of twelve or thirteen years are almost in a rudimentary state, and consequently unfitted for the copulative act. All attempts on the part of an adult male towards the intromission of the penis must, hence, completely fail in a large majority of cases, by virtue of the manifest physiological disproportion that exists between the narrowness of the vagina and the size of the virile member, and the result is that the extremity of the rigid penis simply exercises friction or pressure (more or less energetic) against the vulva. When there is simply friction, there is left no mark, for the ejection, quickly produced by the venereal super-excitation, does not delay to abridge the duration of this veritable erotic mania; but when there is pressure of the gland, frequently renewed, against the space between the labia majora and the periphery of the vaginal orifice, the result is a slow and gradual deformation of the parts, and the unfortunate children will carry thenceforth the physical trace of their premature defilement.

This fact was partly noticed by Dr. Boys de Loury, the surgeon to the prison of St. Lazare, equally suspected by Dr. Toulmouche—a medico-legal gentleman of great reputation, and Professor in the Preparatory School at Rennes; but it is to Mons. Ambroise Tardieu, *Professor agrégé* of Legal Medicine in the Faculty of Paris, whose careful scrutiny nothing escapes, that the merit belongs, of having first diligently studied everything relating to the medico-legal history of attempts on female virtue, and of having determined the nature of the lesion we are noticing.

In 181 examinations of criminal attempts on females, Mons. Tardieu has met with the characteristic deformation in 60. The ages of the victims were as follows: twenty-nine of 11 years; twenty-six from 11 to 15 years; four from 15 to 20 years; and one, an exceptional case, a female aged 41. Tardieu was first struck, in his numerous examinations, by the premature development of the sexual organs, and this excessive anticipation contrasting so singularly with the age, stature, strength, and general constitution of the smaller girls. Some at 10 and 11 years presented indications of nubility almost perfect. The labia majora were thickened, were separated at the inferior portion, the vulva widely open, the labia minora so increased in size as almost to exceed the labia majora, and as if they had been subjected to repeated stretchings; the clitoris increased in size may have been caused, as is often the case, through the influence of onanism; frequently red, and, in part, uncovered. Coming to an exact description of the deformation, which he thinks should be made of great account in the future of criminal trials for attempts at violence, Tardieu expresses himself thus: "The smallness of the parts and the resistance of the sub-pubic osseous arch opposing the complete entrance of the virile member and the destruction of the hymen, have, as a consequence, when attempts at sexual connection are made, the forcing back of the hymen and all the parts that compose the vulva. The result of this is the formation of a species of infundibulum, more or less capacious and of greater or less depth, capable of receiving the extremity of the penis, and very analogous to that which has been shown as a characteristic of Pederastia. The hymen-membrana, occupying the bottom of this infundibulum, forms a kind of projecting cushion, pierced in the middle by an opening with fringed edges. Oftener the hymen is thinned, retracted, and reduced to a sort of ring or circular fold, which leaves the orifice open. It is not most usual, in consequence of a rupture, that the hymen is found thus diminished, although in some cases there may be found an incomplete tearing on its free edge; but the membrane has undergone a species of wearing, and the atrophy has resulted from the repeated pressures it has received, the resistance to which it has almost alone supported.

"When we examine this in young girls who are near the age of puberty, or who have attained it, there will be found sometimes a widening of the vulva, and the hymen will be seen relaxed, and, as it were, floating before the enlarged vagina, whose entrance it does not prevent. Thus, by a series of repeated efforts, perfect entrance may

have been obtained, followed even by pregnancy, although the hymen has not been destroyed."

These views of Tardieu are then corroborated by an enumeration of some cases, which show that this infundibuliform appearance is so frequent an effect of attempts on female virtue, that its appearance may be looked for with some certainty in a case. It is an important subject in legal medicine, and this sign, along with others, may lead to conviction, where such a result could not be had without it. Cases of this kind are reported all too frequently in our own journals, and experts must prepare themselves for their full examination.—*Gaz. des Hôpitaux.* L. H. S.

Formation of Oxalate of Lime in Mould.

Vulpian exhibited some microscopic preparations, presenting numerous crystals of oxalate of lime in the mould that had been developed on some anatomical preparations. It is known that such preparations, preserved in a weak aqueous solution of chromic acid, very readily mould, and that this effect requires constant examination of the preparations, and a complete renewal of the solution from time to time. He found that the *mycelium* of this mould always contained numerous crystals, approximating in form to those of the oxalate of lime. It is only necessary to let animal tissue remain in a solution containing one per cent. of chromic acid for a certain time, without renewing the liquid, and without hermetically closing the vessel, to insure the appearance of such mould.

It is in the submerged layer, the mycelium, that the crystals appear in quantity, growing progressively with the increased extent of the mould. The crystals present very different forms, although derived from the same type, which is the regular octahedron. They resemble the well-known crystals of oxalate of lime, which are encountered in the urine. They rarely exhibit the primitive typical form—most frequently presenting a right truncation of each angle of the base. This is sometimes so slight that the form is scarcely modified; but they often give the crystals appearances which are very difficult to understand. When their magnitude is increased they assume the form of prisms, with a square base and pyramidal summits.

The author had not obtained a sufficient quantity of the crystals so as to subject them to direct analysis, but concludes that they are

composed of oxalate of lime from the following reasons: their form is octahedral, or derived from the octahedron; they are insoluble in water and alcohol, in soda and acetic acid; soluble, without effervescence, in nitric and sulphuric acids, with the formation, in the latter case, of characteristic crystals of oxalate of lime.

These crystals are formed in the mould, and not by the action of the chromic acid on the animal tissues, although this acid must have some influence in their production, as they have not been found in mould produced in preparations that had been immersed in alcohol, and then dried. Chromic acid is an oxydizing agent, and thus it may favor the production of oxalic acid, at the expense of the organic matter. It is true that we might admit that oxalic acid is formed directly, at the expense of the atmosphere, from the mould, and that the chromic acid and the results of its action on animal matters have no special influence. As for the lime, it is a constituent of the water employed to make the solution, and of the animal matters experimented upon.

The presence of nitrogenous material has a very great influence on the production of crystals of oxalate of lime, or rather upon the development of the mould, which determines their production. On the 27th April, 1858, Vulpian placed in a bottle a solution containing one per cent. of chromic acid, with some sugar, and on the surface of this solution some mould that he had taken from a vessel where the oxalate crystals were produced. There was no rapid production of mould for some months, and on the 15th of October he could detect no crystals of oxalate of lime, although the water contained a large quantity of salts of lime.

In a similar experiment performed at the same time, where, however, he placed on the surface of the solution some scrapings of kidney beans, in a short time (15 days) the whole surface of the liquid was covered with mould, and in its mycelium large quantities of the crystals were found.

During these experiments the author found similar crystals in the bladder of two frogs. The animals had had their spinal marrows cut transversely, and survived the operation for ten days. The bladder in each case contained much liquid after death; in one there was a slight deposit of a substance somewhat flocculent, which microscopic examination showed to be composed, in a great part, of filaments of *mucedineal*, containing, in their midst, oxalate of lime; in the other there was a deposit of a granular character, not saline, and probably of a mucous origin; and in this deposit the crystals were found.

It may now be asked, whether a portion of the oxalic acid, found

combined with lime in the urine of the herbivora and in that of man, is not formed in the bladder, from contact of the living epithelium, which should possess in the production of this acid an action analogous to that which is possessed by the vegetation of mould.—*Gazette Médicale, Jan.*, 1859. L. H. S.

Poisoning by Quadroxalate of Potassa.

Dr. Jules Worms describes a case of poisoning, by this agent, in the *Gazette des Hôpitaux*, which is interesting on account of the successful employment of a substance heretofore considered as increasing the danger in such cases, viz.: the bicarbonate of soda.

It seems that 15 grammes of cream of tartar had been prescribed for a chlorotic woman. On taking the article brought from the pharmaceutist, she was seized with acute pains in the stomach, with a tendency to emesis. Countenance anxious and pale, covered with a cold sweat; eyes sunken, skin cold, pulse feeble, fingers and nails blue, like those of cholera patients. She complained of burning in the stomach. The matters ejected from the stomach were frothy, white, mixed with some brown patches.

On tasting some of the substance taken by the patient, which had been left in the glass, it was at once suspected to be the commonly called *salt of sorrel.* A strong solution of *bicarbonate of soda* was administered, and after considerable eructation, a diminution of epigastric uneasiness was experienced, and the efforts to vomit ceased. The use of the alkaline preparation was continued along with an aromatic infusion, and at the end of half an hour the voice became distinct, the skin warm, and the pulse fuller. Epigastric pains were still complained of, and violent pains, also, in the lumbar regions, doubtless occasioned by the carbonic acid gas. On examination of the bottle from which the medicine had been taken, it was satisfactorily ascertained that the substance was quadroxalate of potassa, and that consequently the patient had taken fifteen grammes.

The poison was taken in the morning; by evening the stomachic and lumbar pains became again intense, but pressure on the epigastrium gave very little uneasiness. Pulse was again feeble, although better than in the morning. Some table-spoonsful of an amylaceous broth were borne without pain. The bicarbonate was continued for two days, during which there was a strong acid taste of the poison in the mouth of the patient. She remained with a frightful pallor;

suffered at the stomach, although the pain was not increased by the ingestion of light articles of food. Improving slowly from day to day, at the end of a week she was able to resume her ordinary duties.

Dr. Worms publishes this case because he thinks it shows the advantage of employing as antidotes for poisonous acids or acid salts, soluble bases instead of an insoluble base mechanically suspended in water, as usually recommended, such as chalk, plaster, and magnesia. The chalk, for example, is very irregularly applied to the surface of the stomach which the poisonous liquid covers, so that there is not general neutralization of the poison. It is also an advantage to have a very soluble compound, produced by the neutralization, the absorption and passage of which through the digestive passages may be without danger. Besides this, the mucous coat of the stomach being injured by a caustic acid, and then covered by oxalate of lime, would be placed in an unfavorable condition for cure, as the elimination and removal of the insoluble salt would be difficult, requiring considerable time and violent efforts. Such inconveniences will be avoided by the employment of bicarbonate of soda, especially where it is required to neutralize sulphuric, nitric, and oxalic acids. Few neutralizations are so rapidly effected as that of quadroxalate of potassa by the bicarbonate of soda.

We have given the above on the authority of Dr. Worms, but we are obliged to append our doubts as to the efficacy of the antidote referred to. Taylor specially cautions against "the exhibition of the alkalies—potash, soda, or their *carbonates:* since the salts which they form with oxalic acid are as poisonous as the acid itself." It seems to us that the cure in the case reported was occasioned by the thorough emesis to which the patient had been subjected. The use of alkalies in cases of acid poisons is not new, as it was first proposed by Dr. Ebers, of Breslau —ORFILA, *Toxicologie,* I. 122. L. H. S.

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Report on the Vital Statistics of the United States, made to the Mutual Life Insurance Company of New York. By JAMES WYNNE, M.D. New York: Bailliere, pp. 214, 4to.

The book whose title we have quoted has been on our table for some months, demanding examination and notice; that neither have

yet been given it in the MONTHLY, cannot be explained on the supposition that inclination had been wanting to draw the attention of our readers to it. There are some books so well condensed by their authors that it is almost impossible to make an abstract, or to prepare an epitome of their contents. In their very nature they are condensed epitomes, and all the reviewer can do is to give an idea of the subjects treated, and the character of the treatment. Dr. Wynne has furnished such a book in this Report on Vital Statistics. It was prepared at the instance of a Life Insurance Company of New York, and published at the expense of nineteen different organizations of this kind—in itself a fact suggestive of the important practical character of the Report, in which light alone it would be received by insurance companies.

Dr. W. has had access to the best sources of information as regards the statistics of vitality under varying circumstances, and, with commendable diligence and skill, has classified and arranged these, so as to give us a very accurate idea of the present condition of our knowledge. Traces of hard labor in that most troublesome and harassing field—statistics—meet us on every page. We are aware how liable such tables of statistics are to error—how strikingly they contradict the old saw, "*that figures will not lie.*" It is difficult to establish proper principles for their preparation, and still more to have reliable persons engaged in this duty. The circumstances which may make them useless are many and various; but such as they are, even with all their imperfections, they form excellent aids to the statistician, the sanitarian, and the insurance company. Such as they are, when given to the painstaking student, he is enabled to employ them for the advantage of his race. The results obtained by their examination do not tend to the production of fatalism, in theory or practice; but to a profound recognition of an all-protecting Providence. When we see a *fixed* death-rate, running through years, it impresses us with the idea that something more powerful than man is controlling the destructive steps of death, and bringing even his forays into order and system. The same idea naturally arises when we look at the fixed per centage of births. But there is a direct benefit to the physician, arising from such statistical tables. He is placed by them in a position where he can satisfy himself as to the improved hygienic condition of his neighborhood; when the death-rate has diminished, or when this has increased, he is made to understand how some extraneous causes have been added to the morbific agencies. From all this, such information can be obtained as will enable him to perform the duties of his

profession, with an intelligent appreciation of its results, not otherwise to be obtained.

We hope that the next census of the United States will be placed in charge, not of politicians, as a reward for labors in the caucus, and at the hustings, but of men of science, who have studied the subject of statistics, and who shall be able to supply us facts, and their proper value; in this way the decennial census will be something more than a mere collection of stupid figures, and will be made to teem with life and interest to every physician and student of science in the land. In this way the government will be lending aid of a most valuable character to writers who, like the author of the present report, are disposed to discuss the laws of vitality and of death. L. H. S.

A Treatise on Fractures. By J. F. MALGAIGNE, Chirurgien de l'Hôpital Saint Louis, &c, &c., with one hundred and six Illustrations. Translated from the French, with Notes and Additions, by JOHN H. PACKARD, M.D. Philadelphia: J. B. Lippincott & Co., pp. 683.

This is a very valuable book. The name of the author is sufficient in itself to attract attention, known as he is to all who have any acquaintance with the French school of medicine, while the subject is one of constant interest to every one who makes the least profession of practicing surgery. Its arrangement is very excellent, consisting, in the first place, of a general discussion of fractures, their causes, their varieties, their symptoms, their course and termination, their treatment, complications, results, and deformities; more than one third of the volume being thus occupied; the remainder consisting of a discussion of individual fractures. Of course the general doctrines are French, but we find constant and abundant reference to the English and American authors.

Dr. Packard has performed his duties as translator in a creditable manner, having been unusually successful in avoiding the introduction of foreign idioms, a fault into which almost every one falls, and, from the necessity of the case, almost unconsciously. Dr. P. has also succeeded quite well as an editor, though his additions might have been improved if he had had a more extended acquaintance with the professional periodical literature of our country. He does not appear to be conscious that there are more than one or two journals published in our country. The effects of this neglect or ignorance will perhaps be more strikingly illustrated by reference to the section on fractures of the

neck of the inferior maxillary bone, of which Malgaigne says, that "it is excessively rare, and for my own part I have never seen it," and to which the editor adds a memorandum of a case "diagnosed [better *diagnosticated*] during life, and verified by *post-mortem* examination." A case of this injury discovered during life, verified by several surgeons, and *treated successfully* in a new and "excessively" ingenious plan, after all ordinary appliances had been found incompetent to retain the parts in apposition, was reported by Dr. Heydock, of Chicago, in the medical journal of that city, and copied into the MONTHLY, as well as into quite a number of other of the journals, during the past year. No notice of it appears in the editorial comments of this volume. There are other instances of a similar character, but it is not necessary to enumerate them.

The paper and the print of the book are very good. One thing we hope may be changed in the next edition, for we believe there will be a demand for repeated editions, and that is the running heads at the tops of the pages. There is no manner of use in repeating "a treatise on fractures" six hundred times, as is done in this volume, each page bearing these words; but there would be very great convenience to the reader in having the subject of each page announced in full upon it. It would save much turning to the index and waste of time, to say nothing of patience.

This book must take rank as a standard authority upon fractures.

P.

A System of Human Anatomy—General and Special. By ERASMUS WILSON, F.R.S., &c. A New and Improved American Edition, from an Enlarged London Edition. Edited by WILLIAM H. GOBRECHT, M.D , &c., with 397 Illustrations on Wood. Philadelphia: Blanchard & Lea. 1859.

It is a trite proverb, that "good wine needs no bush." It is equally true that a book so universally known, as is this, needs no introduction to the profession of this country at the present day, through the medical press. It has been tried, studied, thumbed, laid on too many dissecting-tables not to be thoroughly known in all its merits. There is, then, no necessity for a word of praise in its favor, as it still remains the favorite text-book on anatomy throughout the country, having enjoyed this reputation for many years under the editorial supervision of Dr. Goddard.

The present edition is a reprint of the seventh London edition, with

all the revisions of the author made in 1857. Dr. Gobrecht, the present editor, has carefully reread the work for the American edition, corrected a few errors which had escaped the detection of the author, has made a few additions, incorporated in the text more than a hundred new illustrations, and has rendered this edition the most complete work on general and special anatomy now issued from the English press. It is a work that every student should have, and once possessed of it, he should make it his constant companion. D.

SELECTIONS.

On the Artificial Production of Bone by Transplantation of the Periosteum, and by Osseous Grafts. By M. OLLIER.

The following is a brief abstract of the papers by M. Ollier which have recently excited so much attention at the "Académie des Sciences."

Notwithstanding that the experiments by Flourens and others may be considered to have decided the question of the agency of the periosteum, M. Ollier, in order to elucidate certain undecided points, determined to institute new series of experiments of a very varied and novel character. All the details of these experiments have been laid before the Biological Society; and those of them which relate to transplantation in the same animal are given at length, with illustrations, in Brown-Séquard's *Journal de Physiologie* for Jan. 1859. Here are the results:

I. *The artificial production of bone by means of the transplantation of periosteum.* (1.) *Transplantation in the same animal.*—Although the experiments were also performed on other animals, the rabbit was especially the one selected. The strip of periosteum was generally detached from the tibia, as being very accessible; and wherever this strip was grafted or secured, there was bone produced. *a. The flap of periosteum retains its attachment to the base* by one of its extremities, the rest of it being lodged within the muscles, under the skin, etc.; and consequently it continues to receive some vessels from the bone. A strip may be obtained from the tibia, long enough to wind round the bone or to twist into a spiral or figure-of-eight form, around the deep muscles, a cavity in these having been first hollowed out. If the rabbit be young and vigorous, immediate union usually takes place, and the animal seems scarcely to have suffered from the operation. The periosteum contracts adhesions with the tissues, amidst which it is placed, and new bone is formed at its under surface, this new bone assuming the form and disposition of the periosteal flap. The amount of bone thus formed diminishes in quantity, however, with the age of

the animal. Thus in a five-year-old rabbit, a mere trace of osseous tissue was found, the remainder of the periosteum being still fibrous. The new bone adheres to the old bone whence the periosteum has been borrowed, and that by so considerable a base as to give it the appearance of an apophysis. *b. The communicating pedicle of the flap is excised* three or four days after the transplantation, so as to cut off all communication with the bone. The ossifiable exudation continues none the less, and new bone is produced, which is adherent or movable accordingly as the strip is reapplied to the bone or left quite independent. *c. The flap is completely divided at the time of the operation*, and transplanted amidst neighboring or distant parts. Thus the strips have been transplanted under the skin of the groin, the back, etc., or placed in the midst of the crest of a cock; and in all instances ossifiable secretion has resulted—the osseous production being large in proportion to the size of the animal and the extent of the periosteal strip. Bones of from one to three centimetres in length, and of varied form, have been produced. The nature of the medium in which the transplantation was effected influenced the result; and the crest of the cock, owing to its rich vascularity, constituted an excellent soil for this artificial osteogenesis.

(2.) *Transplantation of the periosteum of one animal to another of the same or of a different species.*—These interchanges have been tried between the dog and the rabbit, the rabbit and the guinea pig, the fowl and the rabbit, and the dog and the fowl. Periosteum transplanted under these circumstances may comport itself in different ways: *a.* Occasionally it may become absorbed soon after the transplantation: *b.* it may become gangrenous, and be discharged by suppuration—and this was almost constantly the case at Paris with respect to rabbits, in which the periosteum of the dog had been applied: *c.* the flap may remain encysted without giving rise to suppuration; the cysts after a while being found to contain only fatty matter or concrete pus: *d.* the periosteum adheres to the surrounding tissues, and is penetrated with new vessels, but it has lost its osteogenic properties, and continues only as a vascular and fibrous membrane: *e.* The periosteum not only contracts fibrous and vascular adhesions, but produces osseous tissue. This is brought about with much more difficulty than in the case of transplantation in the same species, depending upon conditions which require to be more accurately ascertained.

(3.) *External appearance and structure of the bone produced by transplantation.*—The bone thus produced is not a mere calcareous concretion, or even an unformed mass of osseous substance. Its texture presents a disposition analogous to that of normal bone, and the microscope shows that the bony corpuscle is the fundamental element. Externally, the bone is clothed with periosteum. It is hollowed into medullary spaces, (filled with a substance resembling fœtal medulla,) which afterwards unite into one large cavity. The new bone may be adherent or not to the old one. In the former case it is no production of the old bone, but a new bone added to the old one, increasing side by side with it, but not living at its expense. Tracing the

development of this new bone from the commencement, we may convince ourselves that it is formed from a subperiosteal blastema, issuing from the under surface of the periosteum; and if we scrape one-half of this surface with a scalpel, we then destroy the germs of future bone, and the osseous tissue will only be produced by the half that has not been scraped.

II. *Osseous Grafts.*—M. Ollier has performed a series of experiments, in which bones entirely separated from the soft parts, but surrounded by their periosteum, have, when transplanted, continued to live in their new localities, increasing according to the laws of their normal development. This, however, as yet, has only obtained with regard to the bones of the same species of animals; the bone under other circumstances, only apparently grafting, becomes encysted. The preservation of the periosteum is the one thing essential for the success of the transplantation. Without this, the osseous tissue does not appear to possess sufficient vitality for the contraction of vascular adhesions; and although it offers more or less resistance to absorption, it at last disappears.—*Gazette Médicale*, 1859, Nos. xiv. and xv.—*Medical Times and Gazette.*

On the Identity of the Meconium and Vernix Caseosa. By Prof. FORSTER.

The general opinion respecting the meconium is, that it consists in a mixture of bile, intestinal mucus and intestinal epithelium; but microscopical examination shows that besides the coloring matter of the bile it is composed chiefly of the vernix caseosa. For the most part it consists of small flat scales, which present all the characteristics of horny epithelial plates completely corresponding to the horny scales of the vernix. Under the microscope, the meconium only differs from the vernix by the presence of the yellow coloring matter and the smaller number of fat globules. A proof of the identity is its containing minute hairs in just the same numbers as the vernix, which, indeed, without the microscope, may be separated from it by a needle. The horny scales could have no other source than the vernix, for the stomach and intestinal canal are lined with cylinder epithelium, and the mucous membrane of the mouth and œsophagus does not give rise to them. Besides these scales, we observe in the meconium fatty globules of different sizes, crystals of cholestearine, and irregular yellow and brownish clodlets, which give the dark color to the meconium, and are doubtless biliary coloring matter. The fatty globules are evidently of cutaneous sebaceous matter, and the cholestearine is in part derived from the bile, and in part from the decomposition of the vernix during its passage to and deposit in the rectum.

The fœtus swallows from time to time some of the liquor amnii having the vernix swimming in it, and the hairs and horny scales pass unchanged along the intestinal tract. Whether any of the sebaceous

matter is taken up by the lacteals may perhaps be determined by microscopical examination of the intestinal villi of the fœtus; and it would be interesting to determine, by numerous examinations of the intestinal canal, at what period this swallowing of the liquor amnii commences. As the elements of the vernix are only suspended in the liquor in small quantities, a large quantity of this must be gradually swallowed to lead to the amount of meconium usually present. The water must be soon absorbed from the stomach, as it is never found in it. The greater proportion is probably excreted by the kidneys, and again reaches the amnios. That it in nowise contributes material to the nourishment of the fœtus has been shown by Bischoff; but that does not prevent it serving some purpose in the economy. A regular examination of the entire contents of the intestinal canal in numerous fœtuses of different ages, is required to elucidate these points; and especially would such examination be of interest in the case of monsters. That the acephalæ have no meconium has long been known, and has usually been attributed to the absence of the liver. This would, however, only explain the absence of its dark color; and the meconium will only be wanting when, by reason of the malformation of the intestinal canal, the reception and transport of the liquor amnii holding the vernix caseosa are prevented.—*Wien Wochenschrift*, 1858, No. 32.—*Med. Times and Gaz.*

Bismuth in Gleet and Leucorrhœa. By M. Gaby.

M. Gaby states that repeated trials have convinced him that injections of oxide of bismuth constitute the very best treatment of *gleety discharges.* Thirty parts are suspended in 200 of rose-water, and so injected as to leave as large a deposit of the salt as possible in the canal. Three injections *per diem* should be employed at first, and then fewer. He has collected 43 cases thus treated with success, five of which he briefly relates. *Urethral discharges*, unconnected with gonorrhœa, as observed in certain diatheses, in masturbation, venereal excesses, etc., and increasing in quantity even after pure connection, have been treated by this means in three cases. *Balanitis* and *balano-posthitis*, and *herpes præputialis* yield rapidly to bismuth, applied in powder after cleansing the part, and then covering with cotton. The various forms of *vulvar leucorrhœa* may be treated with bismuth. One of these is entirely confined to the vulva, whether appearing as a consequence of follicular vulvitis or without preceding inflammatory symptoms. The latter is often met with in little girls. Pregnancy, want of cleanliness, masturbation, worms, or contusion, are among the exciting causes. After removing all complication the bismuth acts upon the discharge like a specific. In the leucorrhœa of girls, powdering with bismuth is an excellent remedy. In ordinary vaginal leucorrhœa, occurring in women otherwise healthy, and having no other affection of the genito-urinary organs, the bismuth succeeds well. The cases of *urethra vagi-*

nal leucorrhœa are almost always of infectious origin They have in some instances yielded to bismuth when resisting obstinately other remedies. It is to be remembered that all the cases in which the bismuth is useful are of the chronic description; and that pain, and other signs of acute inflammation, contra-indicate its employment.—*Bull. de Thérap.*, tome lv. pp. 193 and 259.—*Med. Times and Gazette.*

Iodide of Sodium. By MR. URE.

Iodide of sodium may be prescribed in all cases in which the employment of iodide of potassium is indicated, as antidotal to various constitutional symptoms of syphilis, chiefly of the so-called tertiary group, and where mercury has been properly used beforehand; in certain forms of rheumatism; in chronic affections of the joints and bones of a scrofulous character, particularly where a stealthy inflammatory process has determined copious fibroplastic deposition or hypertrophy. If judiciously administered, it may be given in progressively increasing doses, where it is desirable to produce a decided alterative effect on the system. M. Gamberini has furnished a brief notice respecting its use in the volume of Schmidt's "Jahrbücher" for 1858. Reference is made to 116 cases of constitutional syphilis in which it had been exhibited, and where it was found to have acted more rapidly than iodide of potassium, and often proved efficacious where the latter drug had been of little or no avail. It is there recommended to be given as follows: one scruple is to be dissolved in three ounces of distilled water, and this is to be swallowed in divided doses in the course of the day. After the lapse of two or three days, the above amount is to be augmented by the addition of six grains; and so on until eventually the patient comes to take two drachms, or even more, of the salt daily; the time for taking each dose being an hour before meals.

Hitherto I have usually prescribed the iodide of sodium to the extent of five or six grains twice or thrice daily, dissolved in four ounces of compound decoction of sarsaparilla, which forms a convenient vehicle; occasionally, in pure water, with the addition of five grains of bicarbonate of soda to each dose; this serves to counteract acescency, and the consequent liberation of hydriodic acid in the stomach, which is sure to cause headache. In scrofulous complaints, I have given it combined with cod-liver oil, and with manifest benefit. A remarkable and unexpected effect was observed in one instance under this treatment for diseased bone, where a marked improvement of sight ensued from diminution of a nebulous condition of the cornea. In constitutional syphilis, I have found it advantageous occasionally to conjoin the use of the iodide with that of bichloride of mercury, should mercury have been previously withheld, or imperfectly introduced into the patient's system.

As a general rule, the iodide ought to be administered in plenty of liquid, and not on an empty stomach, as suggested by the above

writer. It is readily soluble in water, has a cooling saline taste, certainly preferable to that of the potassium compound, and by no means equally persistent in the throat.—*Lancet.*

Hypertrophic Lengthening of the Neck of the Uterus.—M. Huguier read a long paper in two parts at the meetings of the Imperial Academy of Medicine, of March 1st and 7th, with the above title. The following are the conclusions:

1. The fall of the uterus, whether it is complete or incomplete, is not a single disease, but rather an *ensemble* of several diseases designated under a single name.

2. When the uterus appears externally, or when even the vagina is completely inverted, so that the womb, from the size of the tumor, in the centre of which it is found, seems entirely precipitated between the thighs, it is not, in the great majority of cases, because that it has fallen down and escaped completely from the pelvis, but rather that it has suffered a partial or general hypertrophic lengthening.

3. In the affection designated under the name of precipitation, the hypertrophic lengthening is not the exception, but rather the general rule.

4. Two principal varieties of longitudinal hypertrophy, the *sous* and the *sus*-vaginal, which constitute, in some sort, two different diseases, may simulate the descent and precipitation of the womb.

5. In the first kind of lengthening, the neck of the womb forms, in the cavity of the vagina, a more or less lengthened *cylindroid* or *conoid* projection, whose free extremity approaches the vulvar opening, or even engages between the lips of the part, without the vulvo-vaginal tube being shortened, invaginated, or inverted on itself.

6. It has been, until the present time, confounded with the falling and descent of the womb, when it has not been diagnosed, and treated for a polypus, a chronic inversion, a follicular cyst, a scirrhus of the neck, or a dropsy of this part.

7. No complete description has yet been given, although it has had very clear characteristics in its development, symptoms, and treatment.

8. The medical means and the divers kinds of cauterizations are only applicable to slight hypertrophies, and to those complicated with inflammation and engorgement.

9. Pessaries are the most often useless or dangerous.

10. When a hypertrophic lengthening of the neck of the uterus produces serious symptoms, and is from five to seven centimetres in length, there is but one veritable remedy, efficacious and curative, to be used, and that is the resection of the neck, at a half centimetre below the insertion of the vagina.

The author reports eight cases which confirm this precept.

11. The disease designated at the present time by the names of precipitation, or complete falling of the uterus, is not, very generally, any other thing than a longitudinal hypertrophy of the *sus-vaginal* portion

of the organ, the fundus and body remaining in the pelvic cavity, although the vagina may be entirely inverted, and the tumor hanging between the thighs may have an equal or greater length to that of the uterus in the normal state.

The exactness of this proposition is proved by historical researches, pathological, anatomical, and clinical facts.

12. The cases of hypertrophic lengthening of the *sus*-vaginal portion of the neck, which we find reported here and there in the authors of the last two centuries, and of the present one, have been overlooked, and entirely lost to science; the authors, even of these cases, have not drawn any practical conclusion, and have always confounded this affection with the veritable falling of the uterus.

13. We do not find, in scarce any work, the unexceptionable proof, semiotic and pathologico-anatomical, of the existence of the complete fall of the uterus.

14. On the contrary, the pathologico-anatomical facts which we have described, those that several of our colleagues have, since our observations, demonstrated to the Surgical Society, and those contained in the museum of Dupuytren, prove the frequency of the hypertrophic lengthening, and that of the fall of the neck only in the affection called *precipitation* of the womb.

15. The longitudinal hypertrophy of the *sus*-vaginal portion of the neck, and the fall of the uterus, have different pathological and semiotic characteristics, which distinguish these two affections.

16. The relaxation, the weakness and forced distention, no more than the destruction of the large or round ligaments, do not concur in a very efficacious manner to the fall of the uterus; this is not the case with analogous alterations of the utero-lumbar ligaments.

17. In the treatment of this disease we must not have recourse to a bloody operation, or surgical, properly called, until it produces serious accidents, and that we are sure that the medical means are insufficient.

18. All the operations which have been invented until the present time to fill the therapeutic indications which it demands, are insufficient. They may be useful in the case of simple fall of the uterus, without hypertrophic lengthening; and with this view they may remain to science.

19. In this hypertrophic lengthening of the neck, followed by precipitation of this part and inversion of the vagina, the only operation which can fulfill the principal indications, and which can be followed by success, is the amputation of the neck below the insertion of the vagina—more or less near the body of the organ, according to the degree of the lengthening.

20. This operation should never be practiced before having taken, previously, some precautions against consecutive inflammations. These precautions should be continued with the greatest care for fifteen or twenty days after the operation.

21. The arteries of the uterine tissue are very difficult to seize and ligate: to be able to *act* promptly, it will be necessary to use a tenaculum, which should be left until it comes away spontaneously.

22. The *écraseur linêaire* has seemed to me useful for terminating the section of the neck, especially if this part is very vascular.

23. When the disease is preceded by a rectocele or a voluminous cystocele, or with both of these affections at the same time, after having removed the neck, it may be necessary to operate separately on the hernia of the rectum and bladder, as has happened to me several times with success.

24. The operation is contra-indicated when the pelvic basin and vulvar opening are very large, a perineum more or less torn, and a considerable weakness of the soft parts, which form the floor of the basin.

25. If we do not operate when the conditions indicated in the preceding conclusion exist, the disease does not relapse, and the health becomes as good as it was before the development of the disease.—*Cin. Lancet and Observer, from Gazette Hebdomadaire.*

EDITORIAL AND MISCELLANEOUS.

— Quarantine and Yellow Fever are fitting subjects for discussion at this season of the year. So think the Fellows of the Academy.

At the first regular meeting for the month of June, the subject of the personal communicability of yellow fever was taken up, and Dr. J. M. Smith read a long essay upon this point in relation to yellow fever. Dr. Smith is an advocate of its non-communicability. His paper was elaborate, logical, historical, and lengthy, but failed to advance any new ideas. Dr. Francis, the warm defender of the personal contagiousness of yellow fever, replied in his pleasant, fervid Johnsonian style, giving a charm and a character to the discussion of the evening, if it did not convince or convert by its argument. We always like to hear the venerable Doctor, for he warms up like a young man, and the periods of his speech roll out full and round, despite the effect of time on his voice. He is an antagonist worth having, for wisdom sits on his lip, and distills itself in honeyed words, and the personal knowledge from which he draws is rich and varied. Few have enjoyed similar experience, and few have cultivated it with so great a success.

The discussion for the evening here ended, the question still undecided; for "who shall decide when doctors disagree?"

Dr. Stirling then read a paper on Quarantine Regulations, embodying the remarks he had made at a former meeting of the Academy.

Following this, at a late hour, Dr. John O'Reilly read an Essay on

the Connection of the Nervous Centres of Animal and Organic Life, with the Results of Vivisections.

At the second meeting in June of the Academy, Dr. Isaacs read a paper upon Chylous or Milky Urine, relating the history of two cases which had recently been under his care.

Dr. Harris followed with the second part of his paper on the Philosophy of Quarantine. We have already spoken of this paper as a deferred one. It was promised to be read previous to the meeting of the Sanitary Convention in this city, but the author was obliged to defer the reading on account of sickness.

A part was read at the second meeting in May, and the paper was finished at the second meeting in June.

The first section of Dr. Harris's paper related to those laws of disease and principles of hygiene which are involved in the theory of Quarantine, or external sanitary regulations for commercial towns, and it also gave a *résumé* of facts respecting the propagation of small-pox, typhus fever, the plague, and Asiatic cholera; which diseases, with some others, the author of the paper distinguished as liable to epidemic diffusion, *by means of the reproduction of a specific propagating cause in or by the persons of the sick.* Yet none of this class, except small-pox, he regarded as strictly contagious; contingent and localizing conditions being necessary to the propagation of any others of the class.

That section of the paper read at the last meeting of the Academy was devoted particularly to yellow fever, which Dr. Harris regards as an infectious disease, that is, unconformable with any other, inasmuch as its specific propagating cause or virus *is incapable of reproduction in or by the human body*, yet possessing many attributes which ally it to other specific infections that are capable of personal reproduction; yet, again, being unlike all other known causes of infection, in its absolute *self-existence* and reproduction under circumstances peculiar to itself, or not known to be necessary conditions for the propagation of any other disease than yellow fever.

Our limits will only allow a brief notice of a few points made in the paper read by Dr. Harris.

The " difficulties in the history and literature of yellow fever " were shown to have arisen mainly from the influence of overshadowing hypothetical influences, and from occasional perversions of the truth by interested and selfish men; inducing extravagant or partial statements and baseless assertions on the one hand, and to a misplacement, suppression, and perversion of facts, on the other. But these

"difficulties of yellow fever" cannot prevent the truth from appearing in regard to the essential facts in every epidemic of the malady, as "the specific pathological history and characteristics of that fever will appear in all instances as the great tests by which we may certainly correct errors and misstatements." Several facts were given to illustrate this in the records of various epidemics, and the medical opinions of particular cases of the fever.

In a synopsis of the leading facts respecting the natural and etiological history of yellow fever, and the manner of its propagation, the author presented some original statements, and a condensed summary of facts connected with the cause and propagation of the fever as an exotic and transportable infection. The following points were made particularly prominent: That the natural area liable to the epidemic prevalence of the fever comprises but a comparatively small portion of the earth's surface, and that its native habitats are few, and that those habitats appear to be more numerous in the tropical islands and coasts of the Western than the Eastern Continent. The means of its diffusion and propagation were examined, and the relations of civic and nautical hygiene to the question of quarantine reforms were clearly stated. The conditions that serve to perpetuate the fever, or that prevent the transmission, or the localization of the propagating cause of the fever, were presented in an original light, but it was admitted that only those conditions—not the essential nature of the cause of the fever—had been ascertained. Evidences were adduced to prove that the infectious cause of the fever may multiply or reproduce itself to a limited extent even in a pure atmosphere, when once the virus of the fever obtains a sufficient lodgment to infect any point or space, however limited; but that the fever has never become extensively epidemic in any locality, without the concurrence of the known localizing conditions of pestilent diseases, whether in tropical or extra-tropical regions. Dr. Harris believes that the limited epidemic and very narrow zone of the infected district at Bay Ridge and on Staten Island, in 1856, serve to illustrate the former proposition, while the epidemics of New Orleans, Vera Cruz, and the sweeping visitations of the fever in Norfolk, in 1855, in Philadelphia, in 1797, and in this city, in 1795 and 1798, furnish proofs of the latter.

The conditions under which vessels, apartments, or places may become infected, were defined, and the theory and experience on the subject of disinfectants stated; a freezing temperature or a boiling heat being the only positive agencies for disinfection. Dr. Harris recommends the application of "dry" steam as the most certain and economical

for the disinfection of closed apartments, vessels, and such materials as will safely admit of its application.

The relations of the atmospheric air and various climatic conditions to the origin, propagation, and transportation of the infectious cause of the fever were presented in such manner as to lead to the conclusion that the infection can exist or be transmitted by the direct agency of the air, and yet that the infectious virus *may be* something more than a single miasma. He stated that "only such materials, packages, or spaces, as actually retain atmospheric air in considerable quantity from an infected locality, have ever been known to convey the propagating cause of the fever from place to place, or, in other words, to become *fomites* of infection in propagating yellow fever." It was further stated that "there exists no evidence that any of those material substances or *organic bodies* which possess the property of immediately decomposing the chemical constitution of the atmospheric air they may imbibe or retain, ever have propagated or conveyed the cause of the fever." The doctrine and evidences of personal contagion and infection were dissected, even to the famous Huntington cases.

Following a broad discussion of the varied and distinctive characteristics of yellow fever and other pestilent diseases, the nature and appliances of an external sanitary system adapted to the necessities of this port were defined; and as deduced from Dr. Harris's Essay, that Quarantine system which is required would be exceedingly simple, viz.: Suitable docks and warehouses, specially adapted to facilitate the unlading and transhipment of cargoes; the ventilation or disinfection of contaminated vessels and materials; and, for humanity's sake—not from any known necessity of the public health—proper hospital accommodations near the quarantine anchorage and warehouses for the sick of yellow fever and cholera—diseases that require medical care at the earliest possible moment. Floating hospitals were favorably regarded as a dernier resort under the existing circumstances, especially as "their" preservation from pestilential contamination might be the means of giving *free pratique* to medical and popular opinions that have long been held in quarantine by the blind dogmas of inevitable contagion and infection, and by their successful results "would help to break up that stultifying blockade of the moral sense and human reason, that with penalties of fire and death has forbidden the erection of quarantine hospitals on any spot of the *terra firma*."

— It often becomes the sad duty of the physician to witness scenes of distress beyond his ability either to avert or relieve. Death

frequently, in visiting a family, not only removes a loved parent, but deprives the surviving members of their chief reliance and support. The change from ease and affluence even, to that of want, occasioned by such a loss, is not infrequent. In such an event, the services of the physician are powerless. But how otherwise it might have been, had he, having informed himself upon the principles of Life Insurance, carried to the head of such a family, when in health, the advice which would have protected his heirs from such a calamity, by bringing to them the resources of a well-directed prudence and forethought, founded upon a reliance on the principles of Life Insurance!

Although indebted to the researches of physicians, in a great measure, for the basis of their operations, these institutions are less understood by physicians than any class of persons. Merchants, regarding them from a business point of view, hold them in high esteem as safe investments for their money, while, strange to say, physicians, whose profession is truly philanthropical, neither apply to them for themselves, nor advocate them in their practice as they should. This is owing to the fact of their being unacquainted with the practical workings of such companies.

For ourselves, we believe them to be eminently philanthropical in their nature, the result of a wise diversion of science into the channels of humanity.

We cannot give a full argument sustaining our belief in the space we now have at our command, but we would earnestly recommend to our professional brethren a careful study of the subject, both for their own sakes, and the benefit of many who might apply to them for advice upon the subject.

The system is said to have had its origin in Barcelona, in Spain, in the commencement of the fifteenth century; but the first practical application of it was made in England, in 1698, by the Mercers' Company. In England, at this day, there are over one hundred Life Insurance Companies, dispensing their blessings to all classes of people.

The first company instituted in this country was the Howard Life Insurance Company, of Boston, in 1825. Its business was, however, limited, so that it was not till about the year 1843, when the first Mutual Companies were formed, that the business became permanently established. Since then, however, their importance has become so apparent, their necessity so obvious, that they are increasing rapidly in number, to meet the requirements of the day.

The principle upon which life insurance is founded is the average duration of human life, and the object to be attained is to give the

benefit of this average to each person insured. To arrive at this law of average, extended observations have been made, and Tables of Mortality have been constructed; and from these it has been ascertained that events which apparently seem accidental, follow a certain law—which has been called the law of average mortality.

The first table having any pretension to accuracy and utility was published in London, by Dr. Halley, and was founded upon the registers of births and deaths, with the ages and sexes distinguished, kept for a period of five years, from 1687–91, by Dr. Neumann, in the city of Breslau, in Silesia.

The Tontine Societies of Italy had previously furnished data for a similar table, but, owing to the limited number of lives observed, the deductions were found to be unreliable. The Northampton Tables, which acquired great notoriety, were constructed by Dr. Price, of Northampton, England, from bills of mortality of a certain district, running over a period of more than forty years. These were also found defective, and were discarded, as well as several others; such as the Table of De Parcieux and the London Table. The Carlisle Table, which is now generally adopted by most, if not all offices, was constructed by Mr. Milne, from observations made upon a population of eight thousand persons, by Dr. Heysham, at Carlisle, England, during a period of nine years—1779–87.

From this it will be seen how closely connected members of our profession have been with the preliminary operations of these institutions. Knowing, then, as the educated physician must, the value of such statistical tables, and feeling, as he must, the benefit of such an institution as will protect a family from the distress which want and poverty bring, when death has deprived it of its principal support, he should study its operations, apply them to himself if he finds them good, and become an apostle of Life Insurance, for the sake of the blessings it bears to the afflicted in the time of need.

— We are sorry to announce among the mutations which attach to some medical journals, the discontinuance of the *Maine Medical and Surgical Reporter*, the *Montreal Chronicle*, and the *Louisville Medical Gazette*. A want of *real* support is the cause of this discontinuance in two of these instances. We say *real* support, for we do not mean that a list of subscribers sufficient for their support was wanting, but that the failure in these very subscribers to pay for their monthly news was the cause of their being given up. If physicians would pay promptly the small sum they promise to when subscribing for a journal, we should have less of such instances to chronicle.

We have much to congratulate ourselves in this respect, yet our list is by no means clean of delinquents, and we would respectfully suggest to these the propriety of paying us and all other journals in whose debt they may be. By so doing, they would quiet their own consciences, and give us an additional impetus to work for still greater improvements in the MONTHLY.

The *Louisville Medical Gazette* is discontinued on account of the illness of its editor.

— It is said that the vacancies in the New York Medical College have been filled by the transfer of Prof. E. R. Peaslee to the chair of Obstetrics and Diseases of Women and Children, made vacant by the resignation of Prof. B. F. Barker, and that Prof. Austin Flint, Jr., now of New York, has been appointed to the chair of Physiology and Microscopy, left open by the transfer of Dr. Peaslee.

— We learn that the *Preparatory School of Medicine* in this city, having been incorporated by a recent act of the Legislature, the Board of Trustees have created and filled the following chairs: Surgery—John O. Bronson, M.D. Midwifery and Diseases of Women and Children—Charles A. Budd, M.D. Anatomy—Godfrey Aigner, M.D. Chemistry and Toxicology—Bern. L. Budd, M.D. Legal Medicine—Hon. John H. Anthon. Physiology and Micrology—Charles K. Briddon, M.D. Botany and Materia Medica—George Thurber, M.D. General and Special Pathology—George A. Quimby, M.D. The Faculty are empowered, under certain restrictions, to confer the degree of "Bachelor of Medicine."

— If any of our readers wish a literary journal which will bring to them weekly the best articles of all the current Magazines of the day, we would commend to them *Littell's Living Age*. The recent numbers, in addition to the text, have each had a portrait of some one of the great men whose names are household words among us. A biographical sketch accompanies each portrait. Humboldt, Herschel, Bryant, have already appeared, among others. The foreign Reviews and Magazines furnish their best articles to this hebdomadal. It contains 64 double-column pages, and appears every week, at $6 a year.

— The June No. of the *Buffalo Medical Journal* informs us that the former editor, Dr. Austin Flint, and his son, the present editor, Dr. Austin Flint, Jr., both intend hereafter to make New York their residence. We cordially welcome them.

The medical journal so long identified with their names has, with

the June number, assumed a new title, and is now called *The New York Monthly Review and Buffalo Medical Journal*, published simultaneously at New York and Buffalo.

To our *confrère* we extend our editorial congratulations. New York will afford him a wider field for his professional labors, so promisingly commenced, and the journal which has been so ably conducted under his charge in Buffalo, cannot fail to become here doubly valuable, from the increased facilities for medical intelligence which this city affords.

Case of Poisoning by Phytolacca Decandra.—Three young peasants having dug up some large fleshy roots, and, believing them to be of a cathartic nature, they ate a small quantity. An hour afterwards, all three observed that they had lost their strength; there was a general feeling of coldness and nausea. Two vomited, and had repeated stools; the third, who had eaten more than either of them, had neither vomiting nor griping, but much greater prostration. Flumiani, arriving half an hour afterwards, found the following symptoms: countenance more or less altered, resembling cholera patients, tongue almost normal, voice hoarse, skin cold and slightly blue, pulse depressed and small. There was complaint of a feeling of oppression at the epigastrium, with sensation of weight and extreme thirst.

As the poisoning was produced by a depressing substance, recourse was had to remedies of an opposite character—Malaga wine and rum. The root which had produced these results, being examined botanically, was pronounced to be that of the *Phytolacca decandra*, commonly known as *Poke-root.* Three hours after the attack, there was perfect reaction—a species of intoxication had followed the stupor, the cutaneous heat was elevated above the normal point, and the pulse was full. On the next day, the patients were well.—*Journ. de Chim. Med.* L. H. S.

New Anæsthetic Agent.—Mons. A. Claisse announces, in the *Gaz. des Hôpitaux*, that he has employed the following method of producing local anæsthesia, for some years, principally in the extraction of teeth, the lancing of paronychias, and other minor operations. A solution is made of camphor in ether. The part is rubbed with a sponge saturated with this solution for a minute, in the case of the gums, and then the operation is performed. Where any sensation of pain is felt, experience has shown the propriety of renewing the frictions, when the sensation of pain will either be greatly lessened or destroyed.

L. H. S.

Chemical Composition of the Mollusca, considered with reference to their employment in medicine.—A memoir was furnished the Academy of Medicine (Paris) on this subject by Fournier. He states that the marine species are richest in iodine, of which substance those living on land possess very little; the river mollusks occupy first rank as to the amount of sulphur in their composition, and phosphorus is found only existing in the nervous ganglia of the different mollusca. The proportion of sulphur and iodine contained in each agreeing with the chemical composition of the medicine in which it lives, induced the author to anticipate much advantage in a therapeutical way by charging the medicine itself with medicinal agents. He proposes now to make snails available therapeutically by feeding them, as it were, on iodine, sulphur, phosphorus, &c., or by causing them to assimilate opium, belladonna, digitalis, arsenic, &c.

Fournier received the thanks of the Academy for his paper, with a request that he would continue his experiments. The writer recollects, when a willful child, that his father enticed him to take a nauseous pill by inclosing it in a Chesapeake oyster. The medicine, in this form, was not unpalatable; he thus learned how oysters could be *medicated.* The French savant has gone considerable ahead of the American practice, and forces the mollusk *itself* to become medicinal, without the insertion of the medicine by the attentive parent or nurse. Surely this is a progressive age—and we would suggest as a motto to Fournier's next paper: *sic itur ad astra.* L. H. S.

— We continue our extracts from Dr. A. Mercer Adam's paper in the *Edinburgh Medical Journal*, entitled "Medical Notes from the Continent," by giving this month a sketch of Bamberger, the Professor of Clinical Medicine in the School of Würzburg, and the colleague of Kölliker and Scanzoni. We shall follow it by that of Scanzoni.

Bamberger, the Professor of Clinical Medicine, is another very eminent ornament of the Würzburg school. He is universally acknowledged to be one of the very best clinical teachers in Germany—possessing all the great qualifications for this office—to wit, quickness in diagnosis, skill in physical examinations, decision in treatment, and an intimate acquaintance with all the ancient and modern literature of the profession. He has a peculiar aptitude for imparting knowledge to others; a patient, kind manner with his students, and a very contagious enthusiasm for the advancement of science. I frequently listened to his clinical lectures on the cases in his wards, and was much pleased by his lucid and graphic expositions of all the subjects which he discussed. Among other curious cases which I saw under his treatment, were two of lead-poisoning from the use of snuff. Prof. B. told me that in Bavaria the snuff is usually sold in packages

lined with an amalgam of tin and lead, and that the acetic acid present in nearly all their snuff acts chemically on the lead, and causes the snuff to become impregnated with the acetate thus formed. In both cases, the characteristic paralysis of the extensor, and emaciation of the flexor muscles, was very well marked. Their treatment consisted in the use of sulphates, followed by the administration of iodide of potass, and the local use of galvanism. I find a few notes of some of his clinical lectures in my pocket-book. In one lecture, on small-pox, he discussed with great ability the possibility of other contagions—such as those of scarlatina, measles, and syphilis—coexisting in the same individual with that of variola. He related the case of a girl who was admitted into the hospital, complaining of fever, headache, chronic bronchitis, and slight conjunctivitis. Next day a maculated papular eruption appeared on the face; and as small-pox was prevalent at the time, the professor ordered the patient to be removed to the division of the hospital allotted to variola, believing that he had to deal with an incipient case of that disease. The following day, however, Bamberger saw that he had made an erroneous diagnosis, and that the case was only one of measles. So the patient was removed from the small-pox department, after having been there for twenty hours, back again to the clinical wards, where the disease ran through the ordinary course. The date of this patient's admission to hospital was the 17th January; and on the 1st February, when convalescent from measles, she was again attacked by febrile symptoms, headache, etc., and two days afterwards the eruption of variola distinctly appeared. In this case the contagion of small-pox must have been received during the presence of the infection of measles. Professor Bamberger said he had seen small-pox attack patients infected by syphilis; and although, in these cases, the pustules were distinctly and indubitably variolous, they degenerated, on several of the mucous membranes, into sores of a specific syphilitic character. He regarded this as proof that a true variolous pustule may, in a syphilitic individual, become directly transformed into a true syphilitic efflorescence; and that the pustules of small-pox, in such cases, may retain (at least, for some time) the characters of both diseases. And if this be so, said he, it seems to afford a decisive answer to the vexed question, whether or not constitutional syphilis can be communicated from a diseased to a healthy child by means of vaccine lymph. He admitted that, in our Parliamentary Blue Book on Small-Pox and Vaccination, the majority of eminent physicians had replied in the negative to this question, and were of opinion that in the lymph of a vaccine vesicle its own peculiar virus cannot coexist with the poison of syphilis. But, like Hamernjk, Bamberger believes in the possibility of syphilis being communicated by vaccination, although he asserts this opinion much more cautiously, and with less dogmatism, than the talented professor of Prague. Alluding to the experiments of Sigmund and Friedinger, of Vienna, who found that inoculation with a mixture of vaccine lymph and the pus of a chancre produced only an ordinary chancre, he said, that their results only showed that

the poison of a primitive sore was more powerful than vaccine virus, and did not prove that the modified infection of constitutional syphilis would act similarly. Dr. Heine, of Bamberg, had recorded the following among other cases in point, which had unfortunately escaped the notice of the Blue Book Commissioners, but which clearly prove the communicability of syphilis by vaccination. Thirteen children, born of healthy parents, were inoculated with vaccine lymph taken from the child of a syphilitic mother, which at the time was covered with bullæ, excoriations, and sores, and which soon afterwards died. Nine of these children were immediately affected by syphilis; phagadenic ulcers were formed at the points of inoculation, and glandular swellings, condylomata, etc., followed. In two of the four children who were not affected by the syphilis, the vaccination either produced no effect, or the vesicles never maturated; and in the remaining two cases no result ensued, as the mothers, alarmed by the aspect of the child from which the lymph was taken, had removed the vaccine virus from the arm as soon as they could. Heine had also recorded the case of three young physicians, who inoculated themselves with vaccine lymph from a syphilitic child, as a foolhardy bravado; and two of them suffered from unmistakable syphilitic sores, etc, in consequence. The lecture concluded with an expression of the professor's conviction that, in the face of facts like these, none but the followers of Ricord, who disbelieve the communicability of secondary syphilis, could deny the *possibility* of this specific poison being communicated simultaneously with the virus of vaccine vesicles

Professor Bamberger has contributed largely to medical literature, and is the author of two standard works in practical medicine. The first of these is his treatise on "Diseases of the Chylopoietic System," which forms one of the volumes of Virchow's *Handbuch der speciellen Pathologie und Therapie.* In a somewhat encyclopædic form, he therein discusses the anatomical characteristics, ætiology, symptoms, diagnosis, prognosis, and treatment of all the diseases which may affect the tract of the alimentary canal, or the liver, spleen, pancreas, etc. Bamberger was one of Oppolzer's most distinguished pupils, and in this work he gives a great many of the views of his eminent master, modified by his own experience, and the progress of medical science. His later work, recently published, on *Diseases of the Heart*, ranks as the first standard work on the subject in Germany, and has been received with an extraordinary amount of popular favor. It certainly deserves its high reputation; for it is an admirably written book, full of graphic delineations of all the various cardiac diseases, and withal a very systematically arranged treatise, of the most concise and practical nature. It contains an able exposition of the newest views both of British and Continental physicians; it is specially distinguished by an independent and truth-seeking spirit; it is pervaded by a high philosophic tone; and it is enriched by many original investigations. Thus, for example, the chapter on the mechanism of the heart's action contains much novel and valuable matter. The theories there advanced are founded on original obser-

vations made in a case where a man had a large gash in his side, below the left nipple, which laid open the pericardium without injuring the substance of the heart, and allowed the insertion of the finger so as to feel the heart's action; and also upon a series of experiments on rabbits, performed conjointly with Prof. Kölliker. Bamberger has shown satisfactorily that, during the systole, the heart becomes shortened longitudinally, and broader transversely; that it moves downwards with each systole and during each inspiration, by means of stretching of the great vessels; that in thus descending it partially rotates round its own axis from left to right, so that, between its rotation and its descent, it seems to slide downward along the walls of the chest with a screw-like motion; and finally, that the impulse of the normal heart-stroke felt on the walls of the chest depends simply on the hardening and bulging *(Wölbung)* of the anterior ventricular wall, and of the apex. Again, he opposes the ingenious views propounded by Dr. William T. Gairdner, that in dilatation of the ventricle, without actual hypertrophy, valvular insufficiency occurs, on account of diminished contractility of the chamber, which prevents the papillary muscles—whose function, according to him, is to maintain tension and apposition of the valves in the direction of the orifice they close—being brought into the requisite approximation to one another. Bamberger affirms that the greatest tension of the musculi papillares cannot alter the position of the margins of the valves, because the chordæ tendineæ of the first class, which arise from the pillary muscles, are attached to the middle or base of the valves, instead of to their margins. The stream of the blood expands the free margins of the valves, and they are then fixed, and rendered tense by, the finer tendinous cords which do not arise from, and which are not acted on, by the groups of papillary muscles. His opinions are also very valuable on the connection which exists between Bright's disease and cardiac affections. He believes that in these cases the renal complaint is preceded or occasioned by the valvular disease. With the exception of one case, where endocarditis occurred in the course of Morbus Brightii, Bamberger, throughout his great experience of heart diseases, never saw an instance of the granular kidney preceding the lesion of the valves; but *au contraire*, he has witnessed, in numerous instances, the development of Bright's disease in patients having valvular affections. He acknowledges, however, that in such cases, the granular degeneration may often be no further advanced than its first or preliminary stage. As regards the relation between the cardiac hypertrophy, (especially of the left ventricle,) which so frequently coexists with Bright's disease, he admits that the primary affection is generally that of the kidneys; but he rejects all the mechanical theories of Traube, of Berlin, and others, who consider the hypertrophy to be dependent on derangement of the circulation, resulting from the obliteration of the renal capillaries which occurs during the shriveling and atrophy of the kidneys. For, as he well remarks, we may find dilatation and hypertrophy of the left ventricle present in the early stages of Bright's disease, where there is no

disturbance of the capillary circulation, as well as at a more advanced period of the disease. Moreover, he has shown, by a careful analysis of an extensive series of cases, that the cardiac hypertrophy in granular kidney often affects the whole of the heart, and is the result of inflammatory affections, (peri myo and endocarditis,) of fatty or bacony degenerations of the organ, or of synchronous affections of the lungs. He regards all purely mechanical theories as quite untenable, and thinks that in most cases the cardiac hypertrophy in cases of Bright's disease depends on partial degenerations of the organ itself, arising from certain *vital conditions*, which, as yet, are not accurately understood. Finally, I would direct attention to Bamberger's views on the treatment of pericarditis. He deprecates all heroic antiphlogistic remedies, and is opposed alike to venesection and the use of mercury, as recommended by Graves and other English physicians. The results obtained by his treatment of the disease are very encouraging. Of thirty-four cases of pericarditis treated by him, which were either quite uncomplicated, or dependent on acute rheumatism, pneumonia, or pleuritis, only two died, one of which was a typhus patient with pneumonia, and the other a woman, eighty-six years old, with the addition of double pneumonia. Of twenty-nine cases, where he found the pericarditis complicated with incurable affections, such as aneurisms, heart disease, cancer, and Bright's disease, he had only five recoveries. The treatment which he recommends consists in leechings, cataplasms, or blisters locally, and the internal use of digitalis, neutral salts, nitrate and tartrate of antimony, and also of opiates when necessary.

The writer may add that he is at present engaged, with the consent and co-operation of Professor Bamberger, in preparing an English translation of this work for publication in this country. In this edition an explanation will be given of the differences (where such exist) between the German and English schools, so that the work may be completely intelligible to readers unacquainted with the peculiarities of German medicine.

Arrest of Singultus and Borborygmus by fixing the Diaphragm.—Dr. Wolff states that he has frequently relieved obstinate hiccough occurring in diseased and other conditions by the following procedure. The patient must take a deep inspiration, and then keep the abdomen forcibly expanded as when straining hard at stool, giving way to the necessity of respiration as seldom as possible, and then by rapid inspiration. It requires some practice before success can be obtained. The same process is of great use in the borborygmi to which ladies are often subject.—*Deutsche Klinik.*, 1858, No. 47.

Iodine and Glycerine in Scrofulous Ozæna.—Dr. Campbell strongly recommends as an application, to be made three or four times daily, two grains of iodine dissolved in an ounce of glycerine, giving also internally three times a day in sweetened water, a table-spoonful of a mixture composed of iod. pot. ʒii. Huxham's tr. of bark, ʒviii.—*Moniteur des Hôp.* p. 578.

— We are indebted to the kindness of Mr. Wiley, of this city, for the permission of placing before our readers the first chapter of the translation of Dr. Von Dueben's work on Microscopical Diagnosis, which is being prepared for the press by Dr. Bauer, of Brooklyn. The succeeding chapters are very interesting, and are fully illustrated. The work, originally written in Swedish, has been translated into the German, and has been received with high praises by the savans of Germany. The cuts for the American translation have been engraved under the eye of Dr. Bauer, by a young artist of this city, Mr. Thomas Cuzner. Whoever has seen the original cuts, and compared them with the proofs taken from the blocks prepared by Mr. Cuzner, consider the latter in every respect faithful copies, preserving admirably the beauty of execution of the originals.

Books and Pamphlets Received.

A Treatise on Gonorrhœa and Syphilis. By Silas Durkee, M.D., &c., with 8 colored plates. Boston: John P. Jewett & Co. 1859.

Elements of Medicine: A compendious View of Pathology and Therapeutics; or the History and Treatment of Diseases. By Samuel Henry Dickson, M.D., LL.D., &c. Second edition, revised. Philadelphia: Blanchard & Lea. 1859.

A Manual of Elementary Chemistry: Theoretical and Practical. By George Fownes, F.R.S., &c. From the seventh revised and corrected London edition. Edited by Robert Bridges, M.D., &c. Philadelphia: Blanchard & Lea. 1859.

Urinary Deposits: Their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, M.D., F.R.S., &c. Edited by Edmund Lloyd Birkett, M.D., &c. A new American from the fifth London edition, with 80 illustrations on wood. Philadelphia: Blanchard & Lea. 1859.

Anatomy: Descriptive and Surgical. By Henry Gray, F.R.S., &c. The Drawings by H. V. Carter, M.D. With 363 engravings on wood. Philadelphia: Blanchard & Lea. 1859.

The New American Cyclopædia: A popular Dictionary of General Knowledge. Edited by George Ripley & Charles A. Dana. Vol. VI. Cough—Education. New York: D. Appleton & Co.

The Report of the Resident Physician of the N. Y. City Lunatic Asylum, Blackwell's Island, for the year 1858.

The Brooklyn City Hospital in 1858, and the Address by J. C. Hutchinson, M.D., one of the Attending Surgeons, delivered at the inauguration of the Pathological Hall, Nov. 25, 1858.

Medical Heroism: Address before the Philadelphia Co. Medical Society, delivered Feb. 24, 1859. By John Bell, M.D., &c.

Transactions of the N. J. State Medical Society for 1859, held at the city of Trenton, Jan. 25 and 26, 1859.

Annual Catalogue and Announcement of the St. Louis Medical College. Session, 1859–'60.

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ESSAYS, MONOGRAPHS, AND CASES.

Dropsy and Albuminous Urine: A Clinical Lecture, delivered at the Baltimore Infirmary, June, 1859. By Professor CHARLES FRICK, M.D., &c.

During the past few weeks, gentlemen, there have been several cases of disease admitted to the wards, having certain features in common, but which nevertheless depend on different pathological conditions: these are dropsy and albuminous urine. And as the material is sufficiently abundant, I propose to speak to you of the relation these bear to each other, and of the various alterations with which they are associated.

In the first place, I must tell you that dropsy is an effusion of serum from the blood-vessels, into the cellular tissue, or one of the serous cavities, or both; and that it is produced by two causes. The one, a mechanical impediment somewhere in the course of the vessel, whereby the blood is prevented from returning to the heart, which thus becomes engorged to such a degree that the serum soaks out, to relieve the distention; and the other, an alteration in the composition of the blood, which has become more watery, and readily escapes into the surrounding textures, more particularly as the coats of the vessel have undergone some alteration, in conse-

quence of their being improperly nourished. Now, these two causes combined—that is, mechanical obstruction and thinning of the blood—when they exist together, are almost certain to occasion dropsy, although either may do it separately. And, as we shall see presently, when any pathological condition exists in which these two are present to a decided degree, then are we most apt to have a large amount of dropsy. But you are also aware that fluid is poured out as a result of acute inflammation. You have remarked occasionally, that common phlegmonous inflammation gives rise to pitting from œdema of the surrounding cellular tissue; and you have had ample opportunity to observe the frequency with which a liquid effusion attends an attack of pleurisy. Now, in these cases, neither of the conditions I have just alluded to are necessarily present; the blood is not altered, nor is there any mechanical impediment to its return. But one circumstance, however, is particularly remarkable. The fluid does not consist of serum alone, as in the first instance, but of liquor sanguinis; that is, serum, with fibrin in addition; the latter undergoing coagulation, and producing the fibrinous bands and adhesions, so commonly a result of acute inflammation, and which no doubt serve, in many instances, to repair in a measure the injury inflicted by the disease. I say that the effusion in one instance is serum, and the other liquor sanguinis. This is not invariably true, but is so commonly correct, that practically we may assume it always occurs.

The effusion, then, in these two cases, is entirely different; and without attempting to enter too deeply into the explanation of this difference, I will merely say, that if the accident in the first case is attributable to mechanical causes principally, independent of the blood-vessels; in the latter, the blood-vessels alone are concerned. In ordinary dropsy, the serum escapes, because the blood is thin, and is prevented from returning to the heart; while in an inflammatory effusion, liquor sanguinis is poured out, because the capillary vessels of the part are the seat of a morbid accumulation, from some cause inherent in the part itself. And I beg you to bear these two distinctions clearly in view, for otherwise you will scarcely have a just appreciation of the two different pathological conditions—that is, dropsy on the one hand, and inflammatory effusion on the other. It is true, you cannot always say which of the two is present in a case under consideration, yet nevertheless the principle is correct, and generally the one can be recognized from the other with tolerable certainty.

But to return to dropsy. If you will bear in mind that a serous effusion, whether in a serous cavity, or in the cellular tissue, is due to

mechanical obstruction and impoverished blood, you will realize that when the dropsy is local, the cause must be local; and if general, the cause must be general. Thus, aneurism of the popliteal artery produces œdema of the leg below the knee; femoral aneurism, of the whole leg; and an enlarged uterus, by the pressure it occasions upon the iliac veins, will oftentimes be attended by dropsy of both lower extremities. These are instances of simple mechanical pressure. Again, if the obstruction be seated somewhere in the heart, so that the lower cava is interfered with, the whole of the lower part of the body is involved; while a thoracic aneurism, pressing on the vena innominata, has more than once given rise to dropsical swelling of the upper portion of the body alone; and you can understand also, that if the portal vein, which you know carries the blood of the intestinal canal through the liver, be obstructed in its course, the resulting effusion must make its appearance in the peritoneal cavity. These, too, are examples principally of mechanical pressure. As an illustration of dropsy occurring in persons whose blood is more watery than in health, you will observe that women whose constitution is weak, and whose tissues and muscles are flabby, are prone to have their legs swollen after standing or walking, and that this puffy condition is always aggravated towards the close of the day. But, as I said just now, dropsy to any extent most often depends upon the two conditions combined.

Now, the explanation of the dropsy resulting from kidney disease is not so obvious as the others. You are aware that a large portion of the kidney is made up of small tubes, communicating with blood-vessels, and these in turn with the Malpighian bodies, which are so largely distributed through the cortical portion of these organs. And you can readily understand, that if structural alteration has taken place in these tubes, so that the circulation through the gland is obstructed, they must become more or less congested, and serum will be poured out, which, mixing with the urine, passes off by the bladder, and its albumen may then be coagulated by heat and nitric acid. And the same result will take place from congestion occurring from other causes. This serous drain, then, in a very short time has a decided effect in deteriorating the blood, rendering it thinner and more watery; and as the obstruction to the blood in the kidneys, from the proximity of the renal arteries to the aorta, would be very soon felt in the circulation generally, we would have presented the two conditions most likely to occasion dropsy, namely, deteriorated blood, and interference with its transit through the vessels. But there is this peculiarity about renal dropsy. It usually makes its first appearance

in the looser portions of the cellular tissue, as the eyelids, the scrotum, &c., or in those places where it meets the least resistance, and which are most distensible. And now you will understand why it is that general dropsy must be due to some general cause, interfering with the circulation; why cardiac dropsy should be first evidenced in the lower extremities; that from diseased liver in the peritoneal cavity; and renal dropsy in the looser portions of the areolar tissues. So much, then, for dropsy.

I have just said that when the circulation through the kidneys is interfered with, serum escapes with the urine, and its albumen may be detected by heat and nitric acid. And if, in addition to this obstruction, the blood is deteriorated, either from the drain of albumen constantly going on, or from causes seated elsewhere than the kidneys, the escape of serum is more decided, and its albumen more abundant. You will readily appreciate, then, that albuminous urine does not always denote disease of the kidneys. It is often occasioned by heart disease, and may be produced by pressure on the renal veins; and I need scarcely remind you that if the urine contains pus, the albuminous liquor in which the globules float is coagulable by heat. When, therefore, albuminous urine is present, you cannot necessarily diagnose renal disease; for this is to be made out by other phenomena, and by the assistance of the microscope, of which I shall have more to say to you another time.

Now let me endeavor to show you, in a few words, the application of the principles I have thus far laid down to several cases of disease which we have had under care within the past few weeks.

CASE I.—The first is the man who entered the Infirmary April 28, and left on May 20, named Lynch. I found him much emaciated, and very pallid. His legs and scrotum very œdematous, and there was a considerable amount of fluid in his abdominal cavity. He had very decided dyspnœa, and coarse râles could be detected over both lungs posteriorly. His pulse was weak, intermittent, and irregular, and beat 118 times in the minute. His urine very high colored, of a sp. gravity of 1.023, and amounted to 13 oz. in the twenty-four hours. Both heat and nitric acid threw down a copious precipitate, but under the microscope nothing was perceptible but a few amorphous crystals of uric acid. On examining his heart, I detected a loud, rough murmur, taking the place of the first sound, and most evident towards the apex of the heart. He told us that he had had rheumatism some years since; that for some time he had labored under difficulty of breathing, particularly in mounting ascents; and that the dropsy, which first made

its appearance in the lower extremities, had commenced about four months previously. Now what was the alteration in this case? Manifestly an insufficiency of the mitral valve, allowing regurgitation. And I recognized it in this way. The heart, in contracting, forces the blood through the aortic and pulmonary orifices, and at the same time the auriculo-ventricular valves should close, so as to prevent the blood passing from the ventricles into the auricles. And synchronous with this, the first sound occurs. A murmur dependent on valvular alteration occurring with the first sound, must therefore be due either to stricture of the aorta or pulmonary artery, on the one hand; or to an insufficiency in the mitral or tricuspid valves on the other. As it was more evident towards the apex of the heart, I concluded it was the latter; and as there was no regurgitation in the veins of the neck, and as disease of the left side is more common than the right, I assumed it to be in the mitral valve. Now, in what way are the dyspnœa, the dropsy, and the albuminous urine dependent on this condition? In the first place, if the blood regurgitated into the left auricle, this would be first distended, then the pulmonary veins, then the pulmonary artery, and in turn, the right ventricle, the right auricle, and the cavas. The distention of the pulmonary vessels would give rise to the dyspnœa, and in time the obstruction of the cavas, particularly the lower, from its having gravity to overcome, would become more distended, and allow the escape of serum into the cellular tissue of the legs first, and subsequently into the abdominal cavity. The same cause would produce congestion of the kidneys through the renal veins and the serum thus poured out would pass off by the kidneys. That the albuminous urine did not depend on structural alteration of the kidneys, I was satisfied; partly because there was no evidence of such a condition revealed by the microscope, and partly because the whole phenomena could be explained by the cardiac affection. The indications for treatment were very plain: to lessen the amount of fluid in the circulation generally, either by the skin, the kidneys, or the bowels, and to support the strength. Accordingly, he was ordered squill, asafœtida, and oil of juniper. Under this treatment, his urine was increased to twenty-three ounces, but with no marked benefit. He was then ordered sal rochelle, which occasioned two or three loose serous discharges daily, under which his dyspnœa subsided, and his dropsy sensibly diminished. He left us, however, in the course of a few weeks, his condition more comfortable, but not materially improved.

Case II.—The second case is at present under treatment, and is of

more interest. Lewis Snyder, aged 45, in St. Vincent's Ward, entered the house June 7th. He is a pallid man, and says he was not sick until six weeks before his entrance. Has never had rheumatism, but admits that for some time past he has had difficulty in mounting ascents. He had no dropsy, his dyspnœa was extreme, and his pulse small, contracted, irregular, and 128. His urine had been very copious, but latterly has undergone a marked diminution, and was at entrance 17 ounces, high colored, specific gravity 1.022, and highly albuminous. Dullness over his heart much increased, and the pulsations very vigorous, although irregular. The apex is felt in its normal position, but there is also distinct pulsation at the ensiform cartilage. Above the sternum there is no unusual pulsation, nor can any blowing sound be heard anywhere in the cardiac region. There was nothing unusual in his lungs, except râles throughout, mixed also with dry sounds. A microscopic examination of the urine revealed nothing of importance.

Now what is the diagnosis in this case? The most marked symptom was the difficulty of breathing, produced evidently by swelling in the membrane of the bronchial tubes, and the secretion poured out in them as a consequence. This was scarcely catarrh; it did not commence as such attacks do, and moreover was associated with a very irregular action of the heart, and a kind of dyspnœa, which I have more than once pointed out as belonging rather to the heart than the lungs. That the right ventricle is hypertrophied in this case, is proved by the increased dullness and pulsation at the ensiform cartilage, while at the same time its apex is found in the normal position. For although the heart may be displaced to the right side by various causes, so that the apex may be felt at the ensiform cartilage, yet in such cases there will be no pulsation in the normal position. The right ventricle, then, is enlarged, but will this explain the difficulty? I think not. Regurgitation of the tricuspid or mitral valves would give rise to a decided blowing sound, which there is not; while contraction of the tricuspid would be more likely to occasion dropsy, and pulsation of the jugular veins. But assuming that there is contraction of the mitral valve, the solution is easy. In the first place, the blood passes from the auricle to the ventricle, partly by the contraction of the first, and partly by the dilatation of the latter. Nor is it impelled with sufficient force to give rise to a murmur, while the healthy semilunar valves, flapping back into their place, are quite sufficient to occasion a clear second sound. If, then, the valve be contracted, the usual amount of blood is not received in the left ventricle, nor sent by the

aorta to the various arteries. The pulse, therefore, was small and contracted. In the second place, the auricle must have been unnaturally distended, and thus an excess of blood was accumulated in the pulmonary vessels and the lungs. This explains the dropsy. This accumulation would be felt more or less throughout all the organs, the kidneys among the rest, and the albumen found in the urine was but a result of these organs relieving themselves of the superabundant serum thus forced upon them. So much, then, for the diagnosis.

The indication for treatment was manifestly to relieve the engorged vessels by some drain, which would at least afford temporary relief, and at the same time to support the general strength. Accordingly, he was ordered

Asafœtidæ, gr. j.
Scillæ pulv., gr. iij.
Ol. Juniperis, gtt. ½, every 4 hours.

I did not prescribe digitalis, veratrum viride, or any similar agent, although the pulsations were both too frequent and too forcible, because I considered these were but evidences of the degree to which the heart was obliged to labor to overcome the impediment; and a sedative of this character might lower the frequency and moderate the impulse, but it would unquestionably render the heart more irregular, and increase the dyspnœa. In two days after the commencement of the treatment our patient was able to lie down, and his cough had much diminished. In a week all difficulty of breathing had disappeared, the pulse became fuller, more infrequent, and perfectly regular. The abnormal impulse of the heart had altogether subsided, and his strength had decidedly improved. I would recall to your recollection the fact, that in 24 hours the quantity of urine had increased to 35 ounces, the next day to 56, and has continued between 50 and 60 ounces up to this time. The albumen, too, has notably diminished, and latterly I have ordered him sulph. iron and quinine, for the purpose of improving his strength.

You will remark that in both of these cases I have endeavored to drain off the fluid from the kidneys, in preference to the bowels, and it is for this reason: When liquid discharges from the bowels are produced, it is always a serous fluid, containing various other matters; and as this serum is derived from the blood, such a drain, continued for any length of time, must necessarily weaken the patient to a very great degree, and thus tend to keep up the very causes which originally produced the disturbance. The kidneys, on the contrary, drain off principally the water, and unless the specific gravity of the urine

thus voided is high, it can scarcely be said that any material waste is going on. Do not understand me to imply that waste, and very great waste, may not be produced by diuretic remedies. On the contrary, when the agents are properly selected, as, for instance, the alkalies in rheumatism, very decided emaciation may be produced by their use in a short time. You have more than once seen rheumatic patients in these wards waste most rapidly under the use of large quantities of bicarb. potass., and have remarked at the same time that the urine, instead of containing 600 or 700 grains of solids, had increased to 1,200, and even 1,800, in the 24 hours; and this for days together. Indeed, herein lies, according to the view I hold, as I have more than once told you, the efficacy of these salines in rheumatism. Not, as has been assumed, in neutralizing some assumed element, but in producing general waste, and of course wasting the rheumatic elements, whatever they may be, at the same time. But what I desire to explain to you now is this: When the object is to produce an alterative effect, as in rheumatism and analogous diseases, and the kidneys are the means selected to eliminate the morbid substances, the solids are of every importance, the fluid in which they are dissolved of little or none. Thus, 800 grains of solids in such cases is a decided improvement over 400; but whether the 800 grains is dissolved in 20 or 40 ounces of water, is of secondary importance. On the contrary, when it is desired to obtain a diuretic action, as in heart disease or dropsy, the fluid is all important, the solids less. Here, then, a material point is gained, if the urine is increased from 20 to 40 ounces; but different from the other case, it is much preferable that the solids should remain at 400 grains, rather than be increased to 800, for there is no object in producing waste of tissue. For this reason, colchicum, the salines, &c., are preferable in the first instance, but squill, juniper, and similar agents, in the latter. And in the patient to whom I have just referred, although his urine was increased from 17 ounces to 60, yet the specific gravity fell from 1.022 to 1.009; so that the waste of solids was not materially increased, and he therefore, under good diet, has improved in strength.

Still more interesting than the two cases I have spoken of to-day, are three patients laboring under dropsy and albuminous urine, dependent on kidney disease; but these I must reserve for another occasion.

The Pathology and Treatment of some of the Diseases Incident to Women. By CHARLES FAYETTE TAYLOR, A.M., M.D.

It requires some degree of courage, and a willingness to encounter the charge of temerity, to attempt to put forth any new views on the subject of the diseases of women. Notwithstanding all that has been written, by men who are justly considered as authority on whatever subject they discuss, and with a full appreciation of the advance that our knowledge of these diseases has made in the last few years, as the result of the brilliant discoveries following the perfection of the means of physical diagnosis; and though great improvement has been made in the treatment of these diseases, yet is it not true that the sanguine expectations of the first advocates of topical medication in uterine disease have not been borne out by the experience of the Profession? Who dares at this day to risk his reputation by introducing a new supporter or pessary? And even the caustic has ceased to be the physician's talisman, since so large a proportion of patients once "cured," in a few months return, to his extreme disgust, as bad as before. Or, perhaps, the same case may grace half a dozen case-books, of as many physicians, till at last, falling into the hands of a charlatan, it actually does recover by the aid of *time*, and the wholesome hygiene previously insisted on by the legitimate practitioner: but the quack takes the credit.

But has the subject of the diseases of women been exhausted? Is there nothing further that can be said on the subject? Instances are occurring in every neighborhood where women have had all the symptoms of uterine disease—leucorrhœa, bearing-down sensations, the characteristic backache—who have recovered from all these symptoms without any treatment. Others have recovered after the ordinary treatment had failed to give more than temporary relief. This is not to say that the treatment ordinarily employed (I mean caustics, supporters, and other similar topical treatment) is never useful—for that would be contrary to the fact—but that it is *not always* useful, or even so generally useful as is supposed; and still further, that while well calculated to give temporary relief, it is not competent to insure a *radical* cure; because it does not reach the constitutional condition which constantly tends to produce the disease, during and after the topical treatment, as before. Hence the constant liability to the recurrence of the disease. A radical cure, when it occurs in these cases, is brought about as the effects of *time*. Or, if we would hasten the time and increase the chances of a radical cure, we must look to

some constitutional treatment that shall eradicate or decrease the tendency to the production of uterine disease.

And here I come to my first and fundamental proposition, which is this, viz.: *In the majority of cases, prolapsus, versions, hypertrophies, and induration, ulceration and irregular menstruation, are local symptoms of a constitutional condition.*

They may or may not require topical treatment according to the character and extent of the local manifestation; but a radical cure can only be expected (except, as it often *accidentally* occurs,) through such *general* treatment as the indications of the case require. I am here met with the triumphant citation of those cases of imperfect involution of the uterus following parturition, as conclusively establishing the uterine origin of all the long train of symptoms which subsequently appear. But that is just the case, the pathology of which proves the constitutional origin of the local trouble, with the symptoms flowing therefrom. The question recurs, Why was the involution of the uterus imperfectly performed? Was it because of a mere local incapacity, with a perfectly healthful condition of the general system? Evidently not. There must have been some disturbance of the circulation and the general nutrition—perhaps, indeed, owing to the shock of parturition, none the less constitutional—which prevented a perfect involution of the uterus. If a wound heals badly, we do not suspect the trouble to exist in the wound itself, but in constitutional causes. There seems to be no reason why the same reasoning will not apply to imperfect involution of the uterus after parturition. But even if this were not the case, it has become constitutional before treatment is applied, and should be treated as such.

Another reason for believing that in so many cases the uterine trouble is merely the local manifestation of a general constitutional condition, is the patent fact that all the most distressing symptoms may be present in cases where there is neither displacement, hypertrophy, nor ulceration; though, where they do exist, they no doubt greatly aggravate the existing symptoms, and add more to them. It is too often taken for granted, however, that where there are certain symptoms, they must necessarily arise from disease of the uterus; and if searching investigation discovers the slightest deviation from a perfectly normal condition—so slight, indeed, that it would not be heeded in any other organ—the innocent uterus is subjected to some routine treatment; with what success, the true pathology might suggest.

It is true that a certain number of cases do recover under treat-

ment; but when we witness other cases that apparently recover without treatment, and take into consideration, also, the necessary hygiene that has been enforced—the rest, and, equally important, the *time* that has elapsed—it may be justly doubted how much the *local* treatment has to do with the *permanent* recovery. Let it be understood that it is freely admitted that there are cases of the ordinary uterine derangements of the class indicated above, where the common method of treatment does afford present relief, and often is of permanent benefit; but I believe that these cases are much fewer than is generally supposed; and that even in these cases the constitutional treatment to be proposed in this paper would not only aid in the speediness, but in the permanence, of the cure.

The local disease, individually considered, throws but little light on the constitutional states favoring its existence. We must examine the general conditions of classes and communities, and see if we cannot there discover some condition of constitution favoring the existence of some form of uterine disease, either organic or functional, in a large proportion of the women of this country. If we can find any peculiarity of constitution incident to a class, and can trace a connection between it and the frequency of uterine disease in the same class, then we may be able to determine with more accuracy whether this constitutional state precedes as a cause the local manifestation, or the latter precedes the former.

Our grandmothers and great-grandmothers did not even know of the existence of those peculiar diseases that so afflict their granddaughters. We may properly infer that with them these diseases did not exist; or, if they did exist, the fact would prove the whole argument, for they had not power to produce sufficient constitutional disturbance to make the individual aware of their existence. There are communities to-day where women are no more afflicted with the forms of disease under consideration than our progenitors were. Dr. G. H. Taylor, while on a visit to Stockholm, Sweden, reports that, among several hundred patients at different institutions, *only three* had any form of uterine disease; and on inquiry, the physicians assured him that these diseases are almost wholly unknown in that country. Swedish physicians are second to none in Europe; and if they had existed, must have known it, as they were familiar with its existence in other countries. Let it be remembered, however, in this connection, that the Swedish ladies of the highest class not only attend to their own household affairs, but multitudes systematically practice at the public gymnasia; and the poorer women, as the Delecarlians,

labor in the open air. Even in England, I know, from personal observation and inquiry, that such diseases are much less common than in this country; and it is well known that an English lady not only possesses a good degree of muscular strength, but she is not afraid to put it to daily use.

I do not wish to unnecessarily reproach my countrywomen—possessing, as I believe they do, in a higher degree than the women of any other country, some of the noblest virtues that adorn the sex; but if there is anything in their surroundings or habits of life that favors the production of the diseases under consideration, the physician would do less than his duty did he not point it out to them. I know it is often said that the women of the country, and even the wives and daughters of farmers, who are accustomed to daily labor, are subject to the same diseases as the wealthy inhabitants of the city. But the condition of women in the country is far from favorable to the promotion of robust health. It is not similar to the condition of any other class of women in the world. Educated in the same schools, certainly in the same literature as their more wealthy sisters of the city, and numbering scarcely less of the accomplishments; vieing with their brothers even in the higher mathematics, establishing a high degree of mental, and totally neglecting physical culture, they are in the most favorable condition to speedily break down on assuming the cares and labors of the farmer's wife. This process is wonderfully accelerated by the precocious sensibility of the nervous system, generated by an absurd stimulating system of education. Too great, as well as too little muscular activity, will produce precisely the same atonic condition of the muscular system.

During the continuance of the whole course of boarding-school education for young ladies, there could not be a more ingenious device for rendering them physically weak and inefficient. The daily walk of a drove of these young ladies "around the square," so far as the purposes of physical culture are concerned, ought not to be dignified by the name of "exercise."

Still more pernicious, if possible, than the neglect of well-directed and careful muscular exercise, is the early, almost exclusive, cultivation of *nervous susceptibility*. Nowhere in the wide world are there such well-appearing young girls—taking the well-bred *lady* as the standard—as here; but their manner is that of *ladies*, not of girls. There is a precocious quickness of perception and early formation of character that is quite unphysiological, and stimulated to an inordinate degree by too early introduction to society. The result is, that the capaci-

ties of the system are perverted from tissue-making, and absorbed, as it were, in the sensational life. The body is literally *starved*. With the unnatural cultivation of the sensational and emotional faculties, first the desire, and then the ability to adequate muscular activity, is lost. By the unnatural cultivation of the sensational and emotional faculties, I do not mean an illegitimate cultivation of them—for purer cannot be found than our countrywomen; but their development *before their time*. Let the development of body be far advanced; let the tissues become consolidated; let there be again established a period of romping girlhood between ten and sixteen, and the most of this time devoted to mental relaxation and physical culture, and then the danger will have passed.

This statement has not been overdrawn. The principal of one of the most popular of our city boarding-schools (as it is one of the most deserving) told me, a few days since, that she considered almost every one of her pupils a fit subject for medical treatment. The principal of one of the best ward schools of this city, having over three hundred girls under her care, told me that both teachers and scholars are constantly overworked, and a large per cent. break down, as a consequence, every year. A little girl of thirteen, a member of the same school, was brought to me by her mother for some ailment. She was naturally delicate, was deformed, and had been confined to the bed several years with Pott's disease of the spine. On inquiry, I learned that she had to study from *fourteen* different books! It is not necessary to notice the evil effect upon the mind of such a system.

The consequence is, that few of our women have any adequate firmness of muscle. There is begotten a softness and atonic condition of all the tissues. This condition, of itself, does not imply either emaciation or actual disease, but a lower tone of physical health, *a want of endurance* out of proportion to the size of muscle, and the apparent general health. Indeed, such persons are generally rather plump while young, and in the absence of any untoward circumstances, consider themselves well. But the actual condition of their muscular tissues, compared with a *perfectly* healthy condition, is like the soft, dry, pale pectoralis muscle or breast of a domestic fowl that is seldom used, compared to the firm, juicy, dark-red muscle of the wild birds that use them constantly in flying. The effect of this condition of tissue in its tendency to the production of the diseases under consideration, may be considered under three heads, viz.: that resulting mechanically from the lack of firmness in the tissues; the effect upon the circulation; and the condition of the general nutrition.

1. A little weakness of the muscles of the back, a slight increase of the natural curvatures of the spinal column, a little more than natural inclination of the neck, will cause the chest to sink, and the anterior extremities of the ribs to fall one or two inches, and no one will be able to detect it without contrasting this with the correct position. Thus, the costo-pelvic attachments of the abdominal muscles become approximated, and the muscles themselves relaxed; the contents of the abdomen also, being in the same atonic condition as the other tissues, follow the retreating muscles towards the pelvis. If there be constipation, so much the worse. How could there be a condition more favorable to displacements of the uterus? The uterine broad ligaments, themselves relaxed like the rest, have to support not only the bowels above, but the diaphragm, a powerful muscle, glistening with tendons, is constantly forcing with each inspiration the whole abdominal contents down into the pelvis. Add to all this, as we too often must, heavy skirts, long waists and tight stays, and we have a splendid *mechanical* arrangement for forcing the uterus from its place, slightly suspended at the superior strait of the pelvis as it is, down upon the pelvic floor. The only wonder is that it succeeds no oftener.

Hence we arrive at the first indication for treatment, viz.:

Relieve the uterus from the weight of organs above it by strengthening the muscles of the BACK, CHEST, AND ABDOMEN. This is the best *pessary* that can be used!

2. There are several agencies concerned in the circulation of the blood: the action of the heart and large arteries, capillary attraction, the affinity between the blood and the tissues of an organ in action, and the mechanical pressure of contracting muscle upon venous capillaries. That the heart's action is seriously disturbed in anæmic girls, is well known. But muscles that are but little used have less affinity for the blood, and the mechanical assistance from the pressure of contracting muscle is almost entirely wanting. Hence, no wonder that these cases are notorious for the coldness of the extremities; in many cases, naturally warm feet being a luxury seldom realized; and this coldness often extending above the knees.

Now, with this imperfect circulation—the blood accumulating in central organs—favoring visceral congestions, add the physiological engorgement of the uterine organs at the regular menstrual periods, while, perhaps, these organs are more or less displaced by the previously mentioned mechanical causes; and no wonder that they are so often unable to properly perform their functions. Excessive, scanty, or painful menstruation may be looked for; ulceration of the canal of

the cervix, hypertrophy, and induration, may be expected to follow in natural succession. Hence, we declare the *second* indication of treatment, viz.:

To relieve the uterine congestions, hypertrophy, &c., promote a peripheric circulation by muscular contractions in the extremities while the trunk and visceral organs are in repose.

3. The absence of tonic health of the muscular tissue alone—constituting, as it does, about half of the gross weight of our bodies, and by its active transformations while in healthy use, receiving much the largest part of all our tissue-making food—has a vast influence in deteriorating the plastic quality of the blood, and through the blood, of all the tissues of the body. Hence, we derive our *third* indication of treatment, viz.:

To heal uterine ulcerations and correct abnormal secretions, secure a purer quality of plastic material by the increased oxydation of the blood, consequent on muscular action.

But here, at this point, we have two formidable difficulties to encounter. *Exercise*, as ordinarily understood, cannot be taken by women laboring under diseases peculiar to their sex. Indeed, this inability to take exercise, to walk any distance, to go up and down stairs, and the like, is a good diagnostic symptom in these diseases. The increased soreness and backache, the "bearing-down" sensations attending every effort, and the marked increase of all the symptoms, utterly preclude, in most cases, any effective exercise of the ordinary kinds.

The second difficulty in the way of muscular effort that we have to encounter is the depression of the nervous system, which renders exercise, where it otherwise can be taken, so quickly followed by *fatigue*, that it is often a question whether such attempts do not do more harm than good. The cold feet are often found to be colder, and the symptoms of uterine congestions greater after a walk, than previously; and, instead of refreshing, fatigue and exhaustion are apt to follow. So that it is with some propriety that physicians have ordered *rest*, and even the recumbent posture, in these cases.

But are the objects to be secured by muscular action any the less *desirable* in these cases? By what means can the relaxed tissues, the unequal circulation, and all the train of evils depending on this inability to muscular exertion, be remedied, except through these manifestations themselves?

Fortunately, all these difficulties can be easily overcome. *First, then, the muscles should be brought into action* ONLY *in such positions and*

in such a manner, that none of the symptoms following ordinary exercise can occur. This rule is unvarying. It is easy to see how the muscles of the arms and legs may be brought into the most powerful action, if necessary, while the patient is lying on her back, by the aid of assistants and contrivances, in such a manner that the uterine organs may at the same time be *relieved* by the position, instead of being infringed upon, as in the erect posture. So all the muscles of the back, chest, abdomen, &c., may be brought into action, of any degree of power, in such positions of the trunk and with such a direction of the mechanical force, that none of the ill effects of ordinary exercise can follow.

With reference to the debility of the nervous system, we find that fatigue occurs in the ratio of the *intensity* of the *effort*, and *not* in the ratio of the force of muscular contraction. For instance, to *run* a certain distance will be followed by fatigue; while to *walk* the same distance, taking the same number of steps and using the same muscles, is not followed by any such effects. This rule is unvarying in all possible circumstances of muscular effort. But the effect upon the mass of the tissues is in the direct ratio of the *continuance* of the movement, or the length of time that the muscle is held in contraction, as greater time is afforded for the contraction to propagate itself through the length of the fibres and the mass of the muscle, and for the circulation to arrange itself and plasma to be thrown out. Hence we deduce the following rule, viz.: *To gain the greatest results with the least fatigue, let all movements be done very slowly, and the force of contractions increased by resistance opposed.*

Thus we have perfect control of every movement; can regulate its force most perfectly to the strength of the muscles, and can direct it to any portion of the body. This principle of controlling the circulation by muscular action is beautifully illustrated in cases of ordinary menstrual suppressions, so often met with among school-girls, depending on colds, wet feet, or other cause of deranging the circulation, and before there is serious constitutional disturbance; those cases in which Elixir Pro. is generally employed. If such a patient be seated in an easy-chair, and the mass of muscles inside of the thighs, the adductors of the leg, be made to act powerfully, by slowly drawing the knees apart against the firm resistance of the patient, an actual congestion of the parts adjacent to the uterus can be produced, and menstruation will speedily be established. I have now in my mind several cases of suppression, continuing from three to six months, being re-established in less than a week, by persistence in a similar course.

The treatment here advocated is not only clearly based upon the pathology of that disease, and therefore theoretically correct, but it is entirely *practicable* in its application and beautifully satisfactory in its results; which a few cases, made as concise as possible, to save room, here introduced, will attest.

Case I.*—Mrs. M., thirty-six years old, tall, slightly built, thin and pale, eleven years ago was confined with her first child. Nothing untoward attended that event; she got partly up, and then declined till she took to her bed again. After two years she was able to walk, and was comfortable for the three years following. Then she was treated for uterine disease (prolapsus) for two years continuously.

Feb., 1859.—Uterus slightly prolapsed; great tenderness over the whole abdomen, but without any circumscribed local soreness; most obstinate constipation; had not had a natural alvine discharge for the last three years; great difficulty in walking, especially in going up and down stairs; could take but little exercise, which was followed by the symptoms usual in those cases.

Feb. 9th.—Has commenced to have natural evacuations of the bowels; tenderness of the abdomen has gradually decreased.

March 10th.—Bowels perfectly regular; tenderness of abdomen entirely subsided; gains flesh and strength daily; goes up and down stairs with perfect ease, and considers herself well. Three months after reaching home we hear that she is still gaining strength, and has had no recurrence of the uterine troubles.

Case II.—Mrs. I., aged forty, widow, built much like the case previously described, was attacked a year and a half ago, while on a visit to a friend's, with inflammation of the bowels, with vomiting. The vomiting continued daily for some time. Subsequently was treated for uterine disease of some kind, till coming under our care.

March 14th, 1859.—She complains principally of great soreness in the lower part of the abdomen, and especially in each iliac region. Pressure over the broad ligaments is very painful, and leaves a long-continued aching afterwards; this soreness was so great that she was unable to stand erect; every movement attended with much suffering; could not raise the legs, on account of the pain attending that movement.

April 16th.—Has continued treatment up to this date, when she left. For some time it seemed doubtful about the amount of benefit

* A portion of the following cases were under the more immediate care of my brother and colleague, Dr. G. H. Taylor.

she would receive, the great soreness preventing her from taking only the simplest movements. But as the circulation became better distributed, the ovarian irritation subsided, and after about ten days her progress was uninterrupted. She seems now perfectly relieved of all her former troubles. I ought to mention that the examination revealed not the slightest abnormal condition of the uterus; it was *in situ*, and scarcely larger than a virgin uterus, and for what particular purpose applications were made to that organ it is difficult to imagine. There was no discharge.

CASE III.—Mrs. C., thirty-five years old, a medium-sized, well-formed woman, had been under the care of different physicians for *eighteen years!* Her principal symptom was extreme distress in the immediate vicinity of the uterine organs, with frequent paroxysms of intense pain of a neuralgic character in the uterus. During all this time, according to the history she gave of herself, the treatment was directed to the uterus. As she continued to become worse, opiates were administered to relieve the pain, but that expedient failing, latterly she had used alcoholic stimulants instead. So great was her suffering at the paroxysms of uterine neuralgia, that her physician would often be sent for in the night, sometimes several times in one night, to make an application to the uterus, which would give temporary relief. This was her condition when, on Sept. 22d, 1858, she visited our office. During that first visit she experienced one of the neuralgic paroxysms. The expression of her countenance was that of suffering. Her attention seemed wholly absorbed in the local trouble, and she complained of little else except weakness. There was a slight prolapsus of the uterus and a little congestion, but no more than is often seen in the well organ; no unnatural discharges from any of the parts. At first a few applications of belladonna were made to the uterus, and the treatment, according to the principles previously laid down, was commenced and continued till the first of November following, or about five weeks.

In this case the propriety and efficacy of subduing nervous irritability, by irritating the muscles, was shown in a remarkable manner. In less than ten days the neuralgia and all local pain and distress had entirely ceased, and she remains up to this day, six months afterwards, in good health. Not the least was it that her spirits and temper met with as marked a change as her bodily health.

The principle on which this case was treated, by producing an *alterative* state of the nutrition, directing the nervous energy towards volition and the organic processes of tissue transformation consequent

on muscular action, in order to subdue nervous irritability, is of the greatest importance in these cases.

There are many incurable cases of prolapsus, retroflexion, induration, &c.—incurable so far as bringing about a complete restoration of the organ to its normal position and consistency—that may find relief from much of their suffering, and be made comparatively comfortable, by pursuing the course here indicated. While it is not denied that there are cases where topical treatment is beneficial, still there are many evils flowing from it that it seems impossible to avoid. One of the most important is the fact that the patient's *attention* is habitually directed to the uterine organs, as the cause and seat of every discomfort. The result is a marked state of mind with reference to the seat and character of her disease. There can be no doubt that the local disorder is often greatly aggravated by the state of mind with reference to it. Besides, it often happens that the uterus is bound down by adhesions, and has formed for itself a new bed or locality, and the adjacent parts have become disposed with reference to this condition, and it is both unwise and unnecessary to disturb it. Indeed, in many cases it is impossible to do so. Besides, the constant handling, cauterizing, and disturbance must eventually increase the congestion of the parts.

Why is it that some women—those that present themselves at the college clinics, for instance—walk about in comparative comfort, with an amount of displacement and disease that would lay their more tender sisters on their backs, not with imagined, but with actual suffering? The difference is only accounted for from the fact that sensibility (or irritability) of the nervous system seems to be in the inverse ratio with the cultivation of the muscle. A single example will illustrate this principle. Morrissey and Heenan pounded one another into a jelly the other day, and in a week were as good as new. Every one knows the unfortunate result of the beating upon the Hon. Charles Sumner. No one can suppose that the blows the latter received can compare in severity with those of the former. So that in those cases of undoubted uterine disease, even where from the nature of the case a radical cure cannot be hoped for, a certain amount of relief can still be expected by the treatment here proposed.

Case IV.—Mrs. N. had had a bad getting-up after the birth of her child, seven or eight years before, and during all this time she had been under the care of different physicians, but the precise history of her case, at its various stages, it was impossible to ascertain with sufficient definiteness to recapitulate. She had been confined much to her

bed, and was very much emaciated, weighing only about seventy-five pounds. The uterus was resting on the floor of the pelvis, with the fundus thrown back upon the rectum. She could walk but very little. For some time we tried to keep the uterus *in situ* by frequently replacing it, but all to no avail; in a very short time it would return to its situation, resting on the perineum. For the last three months she was under our care we endeavored to increase her strength up to the point where it would be able to bear the uterine disorder without so great suffering. Proceeding on the principle indicated above, we were entirely successful. She gradually gained her strength, and left for the country, decidedly improved. In about one year she called upon us, so changed for the better as to be scarcely recognized. The uterine trouble still existed, without much change, but the inconvenience arising from it was now reduced to its minimum, and with care she was enabled to enjoy a very comfortable degree of health.

There is one symptom that is so common and so distressing withal, not confined to cases of undoubted uterine disease, but nearly always present in an aggravated form when these organs are in any manner affected, that I cannot pass it over without a moment's consideration. I allude to the backache so generally complained of.

Diseases have their fashions, and a few years ago "spinal irritation" (?) was as frequent as uterine disease is now. Indeed, I know a lady who was delicate at seventeen, and treated for several years by setons, blisters, cuppings, and the whole category of counter-irritants, for "spinal irritation;" then, several years later, without any change in the symptoms, she was subjected to topical treatment for uterine disease; and now, for the last two or three years she has had no medical treatment, she feels rather better, though by no means well.

I believe most fully, with Dr. Thomas Inman, that there is no such pathological condition as "spinal irritation" in the sense in which it is ordinarily used. The sensation of soreness caused by pressure along the spine is not the symptom indicating any known disease of the spinal cord; diseases of the nerves manifest their existence in a totally different manner; but it *is* a symptom of muscular weakness and fatigue. The locality of the pain and soreness is exactly where we should expect it to be when referred to muscular weakness and over-exertion as its true cause. Beginning above, and searching downward, we find this soreness at the base of the skull, at the lower part of the neck, and frequently referred to the prominent seventh cervical spinous process; we find this soreness more marked *each side* of the spine, or near the transverse processes, differing in intensity in

different locations, till you reach the aponeurotic expansion over the sacrum, where it is generally the most severe.

In all cases this aching and soreness is in the vicinity of the origin or insertion of muscles; especially at the musculo-tendonous union. But this is not by any means confined to the back; though, from the mechanical and anatomical relations of the spinal column, it is necessarily somewhat more circumscribed there. But a weak muscle always gives signs of its weakness. This aching and soreness is very constant in these same cases at the origin of the pectoralis major, at the lower border of the breast, and is often erroneously referred to the latter organ, giving the patient indefinite fears of cancer; at the costal insertions, the lineæ transversæ, and particularly at the pubic origin of the abdominal muscles. The soreness and aching at the coccygeal attachment of the muscles of the perineum is obviously produced from the same cause, increasing with the amount of prolapsus and the strain to which these muscles are subjected, especially at the coccygeal attachment.

The weaker the muscle the greater its irritability, and consequently the greater the force employed to accomplish a purpose. The contraction of a debilitated muscle is more like a spasm, and unlike the contraction of a healthy, well-nourished muscle, which uses only so much force as is necessary to accomplish a purpose. Hence, weak muscles are constantly liable to unnecessary overdoing. So the necessary muscular efforts of moving about, or even of sitting up, may be overdoing to very weak muscles. Hence, it is easy to see how this backache and soreness may be kept up for an indefinite period, when the conditions are favorable, by the ordinary muscular effort in sitting or moving about.

Dr. Inman, apprehending the true cause of this symptom, very gravely recommends *rocking-chairs* and the recumbent position as the true remedy. Of course rest to overdone muscles will give relief; but how are they ever to get any stronger? The true remedy is rest *and* exercise. Let the rest be *complete relaxation* of all muscular effort—not the entertaining of company, sitting bolt upright, so that the spinal muscles must be constantly acting; or reclining in a "graceful attitude" on the lounge, with book in hand; but a completely sustained position, when *all* the muscles must cease to act. Then the exercise to follow should be adapted to the special needs of the case, as laid down in the preceding portions of this paper.

Case V.—Miss M., aged fifteen, a school-girl, naturally light and delicate, was brought to me by her father, himself a physician, on the

3d of February, 1859. There was habitual constipation, very little appetite, and general languor; but the overruling complaint was the pain and tenderness in her back. So troublesome was this, that, fearing disease of the spine, she was brought to me for the purpose of adjusting a spinal supporter to sustain the trunk. Her menstruation was normal. After explaining to her father my views of her case, he readily consented to try a different plan of treatment, and placed her under my care. She was ordered to lie down frequently, and rest the muscles of the back in the completest manner, and come daily for appropriate exercises, which she did till the 16th of March, when she returned to her boarding-school cured. Her appetite was good, bowels regular, and there was no aching or soreness of her back, and had not been for several weeks.

The following additional cases will illustrate still further, each in some especial way, the views of the pathology and treatment of some of the diseases incident to women:

CASE VI.—Mrs. D., aged thirty, commenced treatment October 5, 1858. There was great pain in the back, bearing-down pain in the lower part of body, difficulty in walking, tenderness on pressure in the right inguinal region; spirits depressed, &c. At the end of four weeks, all the above symptoms having disappeared, she left. In about two months, in the mean time having passed through a good deal of bodily labor, and been much weakened thereby, she returned, as bad as before. In about the same time she was again relieved of all the symptoms of uterine disorder; grew strong and cheerful, and has remained so ever since. This case illustrates how too great muscular exercise, as well as too little, may produce the same feebleness of tissue, and the same train of symptoms arising therefrom.

CASE VII.—Miss C., aged twenty; weakly from a child; skin soft and fair, hair light; for two or three years had suffered from unintermitting backache, tenderness of abdomen on pressure, leucorrhœa, and great general weakness, with headache, &c. Was often confined to the bed for days; could sit up only a part of the time, and walk only a short distance. Examination revealed slight prolapsus of the uterus and ulceration of the canal of the cervix, which was filled up with the usual glairy discharge. The os tincæ was soft and patulous. To relieve present suffering, applications of belladonna were made for several days, after which it was discontinued. So great was the soreness of the back and lower part of the abdomen, that, with the utmost care, it was some time before she could take movements affect-

ing the muscles of those parts. Commenced July 8th, and left September 16th, greatly improved and nearly well.

Case VIII.—Miss K., aged twenty, also delicate from a child, skin fair and tissues soft, was sick for more than a year, with what her physicians called prolapsus of the bladder; for six months had been confined chiefly to her bed; by using an abdominal supporter she was able to get about a little. Commenced treatment October 26, 1858. She was then able to walk but a few rods, and was obliged to recline the greater part of the time. In three weeks was able to leave off the supporter. From this time her improvement was steady, till she was perfectly restored in two months; having for the last month walked two or three miles daily. At about the end of the treatment she danced all one night without the slightest ill consequences following. For a particular reason, a physical examination was delayed; and as she got better, it was never made. Nearly six months later, she is still perfectly well, and there has been no return of the previous disease.

It cannot be denied that disordered menstruation is almost every day to be met with by the practicing physician, and the leucorrhœa, prolapsus, and even ulceration of cervix uteri, is frequently met with, even in young unmarried women of sixteen or eighteen years of age. I believe that the treatment here advocated—that of giving firmness to all the tissues, and a proper direction to the circulating fluids, and increased nutrition in those organs specially implicated—by a proper use of the muscles, is based upon the true pathology of the cases under consideration. Setting aside those diseases of the uterine organs arising from accidental causes in strong women, we have the vast majority remaining which would legitimately come within the benefits of this treatment. Though the true physician will never hesitate to do his duty, yet to be obliged to make repeated personal examination of delicate young ladies, and indeed of any lady, who are so unfortunate as to require topical medication, is often as disagreeable to him as to his patient; and any treatment that will diminish the necessity, and lessen the frequency of such examination, ought to be hailed with joy by the profession and the public. Experience proves that, in the treatment here advocated, such an examination is not always necessary—even where there is undoubted uterine disease—and more frequently need not be repeated after the true condition of the organs is ascertained. The prolapsed uterus will resume its place, or at least it gives no longer symptoms of displacement, the ulcerations heal, and pain and soreness subside under a physiological course of treatment;

and still more important, the patient is almost insured, so long as she keeps her muscles strong, and blood pure and properly circulated, from a recurrence of the disease. But not less beneficial is the treatment here advocated, to a class of females who, as the French say, "watch themselves live;" who are far from being well, yet have no particular disease, but who seize upon every symptom, and magnify it to the cause of all their troubles—and now-a-days the uterus receives its full share of their attention—and who are never satisfied except when being treated for their favorite symptom, though it may have little or nothing to do with their condition. To such, this treatment answers the indications completely. It gives them something to do; diverts their attention from a local trouble to the general system; and the development of muscle acts as a counter-irritant to the morbid nervous state, and is attended in these cases with the best results.

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A Case of Poisoning by Opium—Death—Post-mortem. By WILLIAM C. ROGERS, M.D., Green Island, Albany Co., N. Y.

William McGarrigle, an ornamental painter, 25 years of age, of intemperate habits, while laboring under a slight attack of delirium tremens, took *one half ounce* of laudanum, from the effects of which he died in *four* hours. He came into his boarding-house about 11 A. M., June 14, asked his landlady for some laudanum and a table-spoon, filled the latter from an ounce vial of laudanum which she gave him, drank it off in her presence, remarked that "if he could get a few hours' sleep he would not die this time," and laid down on his bed with all his clothes on except his coat. At 11.15 A. M., his landlady went in to see him, and found him asleep. At 11.30 he was asleep, snoring loudly and sweating profusely. His sleep to her appeared natural. At 11.50 she found him breathing irregularly and loudly, frothing at the mouth, and of a livid color. Being somewhat alarmed, she sent for a friend, who arrived in eight or ten minutes, recognized at once the dangers of the case, hurried a messenger off for a physician, and immediately ordered frictions to the extremities and gave a table-spoonful of powdered alum, which operated promptly as an emetic, causing the ejection of a small quantity of chocolate-colored fluid, having a faint narcotic odor, and strongly impregnated with rum. I arrived at the patient's bedside at 12.15 P. M., found him breathing stertorously, not to exceed twice a minute; of a deep livid color;

wholly insensible; pulse full, quick, and readily compressed; pupils contracted, and insensible to the light; skin cold and covered with a cold perspiration, standing in beads over the surface of the body. Had him laid on the floor, in the middle of a large room, cleared his throat and mouth, and employed Marshall Hall's Ready Method, in connection with frictions to the surface, coffee internally, and strong mustard sinapisms to the spine and epigastrium. But a small quantity of the coffee was swallowed; all efforts to produce emesis failed; the Ready Method was used perseveringly for $2\frac{1}{2}$ hours, with temporary good effects upon the respiration, the patient being enabled thereby to breathe regularly at intervals for two or three minutes, but with no permanent effects upon either the respiration or circulation. Dr. Charles Freiot, of Troy, used the stomach-pump about 2 P. M., but with no effect; the stomach appeared to be quite empty of all fluids. Despite all efforts, the patient died about 3 P. M.

A coroner's inquest was held at $7\frac{1}{2}$ P. M. The jury demanded a *post-mortem* examination, which was made. The stomach only was examined, and was found to contain about four fluid ounces of dark, coffee-colored fluid, having a faint narcotic odor, and without the odor of rum or other alcoholic stimulant. The mucous membrane was reddened, and much softened in spots near the cardiac extremity. These diseased patches were five or six in number, and did not each exceed the area of a dime.

Mrs. G., the landlady, testified that McGarrigle had been on a *spree* for many days past; that he had a slight attack of the *horrors;* that he was in the habit of using laudanum freely whenever he found himself laboring under the premonitory symptoms of the *horrors*, as he had learned from an extensive and oft-repeated experience that a few hours' sleep, thus induced at such times, would save him from a prolonged attack of this terrible disease. He appeared as usual when he came in in the morning; he had not had any laudanum to her knowledge except that which he took in her presence; he took but a single table-spoonful; he had not eaten a full meal to her knowledge in many days, at least six or seven.

Dr. W. C. Rogers, the physician in attendance, testified substantially as above: that there were no appearances in the stomach to indicate the presence or action of any irritant poison; that the lesions were not of a character to produce death; that all the symptoms would indicate poisoning by some narcotic poison, probably opium; that half a fluid ounce of laudanum, of the strength prescribed by the U. S. Dispensatory, *might* produce death even in a person laboring

under delirium tremens, though usually a larger quantity, in divided doses, is borne with impunity; that where persons are accustomed to the use of any narcotic, a much greater quantity is necessary to produce a narcotic effect; that laudanum or opium would produce its effect more rapidly when taken into an empty stomach, than when taken after a meal; that the evidence on record is sufficient to rank opium among the *cumulative* poisons in certain constitutions.

Other testimony was taken, but as it is immaterial to the points we desire to illustrate, it will be omitted. The jury brought in a verdict of accidental poisoning by opium. The points of interest in this case are three: A young man with delirium tremens takes *half a fluid ounce* of laudanum; in *fifteen minutes* he is found asleep; in *thirty minutes* he is evidently narcotized; in *fifty minutes* the narcotism is profound; and, despite all efforts, dies in less than *four hours* from taking the opiate.

There is no evidence to show that he had taken any opium, or preparation thereof, before taking the half ounce at 11 A. M. That he was in the habit of taking laudanum to induce sleep when laboring under the horrors, is evident, from Mrs. G's testimony, and that of his room-mate, who testified on the inquest to that fact, and also, that McGarrigle had had no sleep for many days and nights preceding his demise. *If he had* taken any, she saw no indications of it: he was known to have visited several dram-shops during the morning for rum, but in none of them had he taken any opium in any form; nor had he been where he could have got any that morning. If he took any, it must have been the night before; and then we have an example of the *accumulative* properties of this tremendous narcotic. (*Vide* Taylor on *Poisons*, Griffith's edition, 1 vol., 8vo, p. 479.) But setting aside this view of the case as unsupported by evidence, as possible, but not probable, we have a man laboring under the delirium tremens, destroyed by half a fluid ounce of laudanum, equivalent to about ten grains of solid opium. The smallest fatal dose of solid opium noted is *four grains*. (*Med. Gaz.*, XXXIII., 236. Taylor, *op. cit.*, p. 479.) This was taken after a full meal, by a strong, able-bodied man, aged thirty-two. The smallest fatal dose of laudanum is *two drachms*. (Ed. *Med. & Surg. Journ.*, July, 1840. Taylor, *op. cit.*, p. 480.) The patient was a robust man, aged fifty-six; he died in twelve hours from taking the dose. Dr. Taylor mentions a case seen by himself, in which *half a fluid ounce*, taken by mistake for tincture of rhubarb, proved fatal to a woman in twenty-two hours.

McGarrigle died in less than four hours from taking the poison.

The usual period at which death takes place is from six to twelve hours. Where the patient lives beyond the latter period, he usually recovers. Taylor cites a case fatal in *five hours*. Christison cites a case fatal in five, and one fatal in three hours. Beck quotes a case fatal in two and a half hours. Taylor quotes a case of a soldier, fatal in three-quarters of an hour after taking one ounce of laudanum. These cases lose their value, as the details are not stated.

McGarrigle had drank repeatedly before taking the laudanum; he was, moreover, laboring under delirium tremens at the time; he was, in a measure, accustomed to the use of laudanum, and though the stomach was empty of all food, and partly filled with rum or other alcoholic stimulant, yet, the smallness of the dose, the rapidity of its action, and the early period at which death took place, are remarkable, and entitle the case to a permanent record.

Three Operations for Vesico-Vaginal Fistula, performed by G. W. Miltenberger, M.D., Professor of Obstetrics, University of Maryland. Reported by Clinton Wagner, M.D., of the Baltimore Infirmary.

Case I.—Mary, a negro girl, æt. 18, entered the Baltimore Infirmary April 17th, 1858.

She stated that, two months previous to entering the infirmary, she was taken in labor, which, after the lapse of seventy-two hours, was terminated by the removal of the child, with the forceps. From the long-continued pressure of the head of the child in the lower strait, sloughing supervened, which resulted in a vesico-vaginal fistula. The fistula was one inch in length, and situated near the junction of the bladder with the urethra. On the 21st May the operation was performed, the night previous to which an aperient had been administered, and an enema one hour before commencing the operation.

A chair in an inverted position was placed upon a low bed, and upon this she was laid, with her face looking towards the floor, and her buttocks elevated; her lower extremities were stretched as far apart as possible, and then tightly bound to the legs of the chair; after which chloroform was administered freely, and when she had become fully under its influence the operation was commenced.

The edges of the fistula, which had become callous, were pared, so as to obtain a fresh surface. In order that union might the more readily take place, Dr. Sim's method was adopted: four sutures were

sufficient to close the orifice, and effectually prevent the passage of urine through the fistula. The operation lasted 1¾ hours, during the whole of which time she was kept fully under the influence of chloroform.

After the operation, the self-retaining catheter was introduced, and Pulv. G. Opii, gr. i., was given every four hours, to prevent an action of the bowels.

On the fourth day, the opium acting as an irritant to the intestinal canal, Pulv. G. Kino, grs. ii., was combined with it.

The case progressed very favorably, and on the tenth day the sutures were removed, perfect union having taken place. The catheter was retained until the thirteenth day, when it was withdrawn.

The patient remained an inmate of the hospital until July 3d, when she was discharged as cured.

On July 23d she was readmitted into the infirmary. She stated that, whilst ascending a flight of stairs with a burden, she experienced a sensation of something having suddenly given way, and immediately became conscious of urine escaping through the fistula.

Upon making an examination, it was discovered that a very small portion of the cicatrix had given way; the actual cautery was applied to this opening, but failed to produce union; another operation was then deemed expedient, but her general condition not then being favorable, she was discharged for a few weeks, in order to recruit her health and strength.

On September 1st the second operation was performed. After having been placed in the position above mentioned, and chloroform administered, the operation was commenced. On this occasion the method of Dr. Bozeman, with the clamp and perforated shot, was adopted; three shot were sufficient to close the orifice.

The operation lasted one hour, after which the self-retaining catheter was introduced, and Pulv. G. Opii, gr. i., every four hours, was given.

On the ninth day the clamp was removed, and the catheter on the thirteenth, perfect union having taken place. On the 29th September she left the hospital perfectly cured; and notwithstanding she had been repeatedly warned of the dangers which would attend another labor, at the present time she is in the fifth month of pregnancy.

CASE II.—Sarah Ann, a negro girl, æt. 20, entered the Baltimore Infirmary May 4th, 1859.

She stated that on Wednesday, March 17th, 1858, she was taken

in labor, which lasted until the night of the Sunday following, at which time the child was removed with the aid of instruments.

The fistula was supposed to be dependent upon the same causes which produced the one in the preceding case—long-continued pressure; it was about three-fourths of an inch in length, and situated near the neck of the bladder.

On the 23d May the operation was performed. She was placed in the usual position, and chloroform was administered freely; the edges of the fistula were freshened as in the other case, and the interrupted suture with the perforated shot, without the bar or clamp, was used; four shot were sufficient to bring the edges in direct apposition; the operation lasted only 30 minutes, after which the self-retaining catheter was introduced, and Pulv. G. Opii, gr. i., every four hours, was given, to prevent an action of the bowels; this was continued until the eighth day, and on the 11th day the sutures were removed, perfect union having taken place; the catheter was withdrawn on the thirteenth day. At this time, her bowels not having been acted upon since the commencement of the operation, an aperient was given, which had the desired effect. She continued to improve rapidly, and on the 14th June left the hospital cured.

Danger from Inhalation of Chloroform.

At the session of the *Société de Chirurgie*, Paris, held March 9, 1859, a paper was presented by M. Verneuil from Dr. Hayward, of Boston. From the report furnished by the *Gazette des Hôpitaux*, we learn that Dr. H. claims that, independent of any accusation as to the impurity of the substance, its too free use in large quantities, the rashness or imprudence of surgeons, that its use should be abolished; that, in fact, where death has occurred, the cause of the same has not been discovered, and that no precaution could certainly prevent the fatal result.

Is it necessary to abandon anæsthesia, this priceless blessing both to patients and surgeons? This would not be necessary, if we could replace chloroform by a substance *equally efficacious*, as easily to be administered, and perfectly innocent. Rectified sulphuric ether possesses all these properties. Dr. H. has employed it in hundreds of cases, in which perfect insensibility and immobility were produced, without the slightest unpleasant effect.

Less active than chloroform, ether has never required more than

eight minutes to produce complete anæsthesia. Much less time is needed, if it be used without any admixture of atmospheric air, as it was found in the Hospital at Naples, where the effect was produced in twenty-two seconds; but this method sometimes produces violent cough, and induces the fear of asphyxia. Palasciano, who also employs it in this way, has never met any serious symptoms; the slight inconveniences produced by it being quickly dissipated. Ether is thus as efficacious as chloroform, produces complete insensibility, its effects are more transient, and it excites less frequently vomiting, nausea, and cephalalgia. It can be administered readily by means of a concave sponge, sufficiently large to cover the nose and mouth, and it is very well tolerated when the patient respires regularly. The cases are rare where the odor is dreaded, and even those can respire it without great difficulty.

Dr. H. considers ether as very innocent, since no case of death has, as yet, been attributed to it. To the statement that it has not been very largely used, it may be replied that if it is not employed in England and in many European countries, on the other hand it is largely used in Lyons, Naples, and almost exclusively (?) in the principal hospitals of the United States.

The author, in his own practice, and under his own observation, has never met with an alarming symptom, whatever may have been the age of the patient, (ranging from three weeks to seventy years.)

Diseases of the heart, lungs, brain, or nervous system, in his opinion, do not contraindicate its use; they only require that its vapors should be mixed with a large proportion of air, and inspired slowly. The effect produced by ether is a narcotism—an intoxication analogous to that of alcoholic drinks, but less permanent and dangerous, because the ethereal vapors are much more quickly eliminated than those of alcohol. Ether, however, respired for a long time may destroy life by producing congestion of the brain.

Dr. Hayward's paper was referred to a committee composed of MM. Robert, Richet and Verneuil.

M. Robert said that neither anæsthesia or chloroform could be renounced now. The latter was not replaceable with ether, which was often insufficient, and equally dangerous, since what was important in anæsthesia was the loss of feeling, and in consequence the conservative faculty, the loss of which was necessarily dangerous. He employed a mixture of ether and chloroform, equal volumes of each; in this way the first inspiration contained most ether, and the patient was thus more easily accustomed to the agent; the effect was constant, the

anæsthesia more complete, and the period of agitation shorter. In the progress of anæsthesia a moment arrived when all the functions were abolished, except the circulation and respiration; if it were pushed further these functions yielded in turn, commencing with the respiration, and the result was death, although in some cases the circulation ceased first. He was opposed to the use of a sponge in the administration of anæsthetics, and preferred Charrière's instrument devised for the purpose.

M. Giraldes said ether had been abandoned in England and Switzerland. Amylene had been rejected without being sufficiently experimented upon, and it might be useful in certain cases, as suggested by Græfa, to facilitate the examination of diseased eyes in children. When death was produced by chloroform, it was not always caused by injury done to the respiration, as he had known animals die from cardiac syncope. The proportion of deaths, according to the *Westminister Review*, had been 1 in 16,000; the whole number of cases, during twelve years' use, being only 79 throughout the whole civilized world.

M. Legouest stated that the only case of death he had ever seen was one in which *the mixture of ether and chloroform* had been employed. It occurred at the Hotel-Dieu of Lyons, under Valetta. A young man had been subjected *unsuccessfully* to the action of ether, administered on a sponge in a bladder. In order to effect more rapid anæsthesia, some drops of chloroform were poured on the sponge saturated with ether. He made but few inspirations, when he died. The apparatus of Charrière does *not* allow of the administration of a greater or less quantity of chloroform at will. The chloroform which produced bad effects in his hospital was found to be of bad quality. This is the point to be looked after—the chloroform must be pure. Richet and Marjolin have shown that during the war in the East, when the circumstances were not favorable to a rigorous observation of the rules for the administration of chloroform, there were but two cases of death in from 18 to 19,000 operations; the first in an ambulance of the English army, the second in the French ranks, at the Hospital of Kaulidjé, on the Asiatic bank of the Bosphorus. A similar effect had nearly occurred in his own practice in that campaign: the popliteal artery of a young soldier was to be ligated for secondary hæmorrhage. There was apparent death, but artificial respiration being kept up for 15 or 20 minutes, suddenly a natural inspiration occurred, the patient revived, and the surgeon breathed along with him.

In the session of the Society held on the 23d of March a resolution was adopted, returning thanks to Dr. Hayward for his paper. L. H. S.

Oxalate of Lime in Urinary Sediments.

M. Gallois read a memoir on this subject before the Académie des Sciences, the purport of which is contained in the following résumé:

Oxalate of lime is a substance that can be readily recognized in the urine of the healthy human being, at all ages. It appears in considerable proportion under the influence of certain kinds of food, and probably of certain medicines. It is very commonly met with in the urine of the sick, but its excretion does not constitute, in itself, disease. Oxaluria is thus not a morbid entity, but only a symptom common to affections very diverse in character. Nevertheless it is proper to say that oxaluria has been observed very often in spermatorrhœa, and in certain diseases of the nervous system, especially in dyspepsia.

There is a substance which very frequently accompanies oxalate of lime in urinary sediments, as well as in gravel and calculus, and this is crystalized uric acid. The very common co-existence of these two seems to explain the formation of the oxalate in the system.

The connection supposed to exist between oxaluria and diabetes cannot be admitted.

The oxalic acid (and consequently the oxalate of lime) appears to be derived from the uric acid, and should be considered as a higher degree of oxidation of this body, or of the elements that form it, so that wherever uric acid or its elements are found in the body, oxalic acid can be produced under the influence of a higher oxidation, which is effected in the blood.

Oxaluria requires ordinarily no other treatment than that appro priate to the physiological or morbid condition with which it is connected. Hence the contradictory character of the medication heretofore proposed for its treatment: to abstain from food and medicine containing oxalic acid, to use small doses of nitro-chlorhydric acid in a bitter tonic infusion, or nitrate of silver, (in the sandy form of oxaluria,) or colchicum in some cases, or phosphate of lime, &c., &c.

Gallois is satisfied that *alkaline mineral waters* are the *most efficacious* in hindering the excretion of oxalate of lime, especially where there is a coincident deposition of uric acid, a condition which seems to him most frequent.—*Gaz. des Hôpitaux.* L. H. S.

Means of Eliminating Grains of Powder from the Skin. By Prof. Busch, of Bonn.

Prof. Busch has taken the idea of this treatment from the method employed by M. Hebra, for freckles. This method consists in provoking, by applications of a strong solution of corrosive sublimate, an eczematous inflammation, after the cure of which the spots on the skin disappear. As the pigment in freckles is not in the epidermis, but in the *rete mucosum*, (rete Malpighii,) M. Busch concludes that in the development of the eczema the epidermis not only is raised, but that the most superficial layer of the dermis is acted upon; and on this account he has been led to propose this means for eliminating grains of powder from under the skin, when it is a recent case, and they are too numerous to be removed by an instrument.

In a case treated in this manner, M. Busch made use of a solution of corrosive sublimate of the strength of 5 grammes (℈iv.) to a quart of water, the application of which, on account of the recent injury, was not continued more than an hour the first day; but the succeeding days, as the patient felt only a slight burning sensation, these applications were made successively during many hours, until the fifth day, when the whole injured part was covered with a considerable eczematous eruption. The applications were then suppressed, and the next day a part of the vesicles simply dried, while others produced their crusts. When one of these crusts was elevated, on its under surface, grains of powder could be seen, and below these, an epidermis of new formation. As this new epidermis was very tender, M. Busch waited for twenty-four hours, then elevated with a spatula all the crusts and scales of the epidermis, and at the same time a great number of grains of powder. In this manner almost all the grains of powder which were situated between the new and old epidermis were detached, and were easily eliminated, with the exception of a small number, only appreciable by a very close examination, and which were situated deeper than the rest. Whether this method can be employed in old cases, experiment only can prove. M. Busch adds, that all agents strongly irritant can be employed for inducing this inflammation, in order to produce the elimination of the foreign body; but the sublimate solution is preferable, because the degree of irritation can be exactly graduated by it, and after the eczema it produces has disappeared, the skin preserves its normal color.—*Gazette des Hôpitaux, from Virchow's Archives.* D.

Treatment Preventive of the Sequelæ of Measles and Scarlatina.

Many precautions are adopted by physicians to prevent the unfortunate sequelæ of these diseases, and the confinement to the sick-chamber for several weeks after convalescence ranks among them. To avoid this, M. Scoutetten, of Metz, has devised the following method, which we find in the *Gazette Hebdomadaire*, for April 1, 1859:

As soon as convalescence commences, that is to say, when the skin is no longer red with the eruption, he rubs over the whole body slightly warmed oil of sweet almonds or olive oil, and puts the patient in bed again, for two hours. The next day he gives him a tepid bath for an hour, then places him in bed, and if the skin is very dry, a new friction with the oil is made. These two frictions and one bath are usually enough to remove all danger. Still, in severe cases, it is well, to avoid any risk, to repeat the means indicated from time to time, until the skin regains its suppleness. These precautions taken, convalescents may be permitted to go out without fear of bad results.

In order to justify this method and explain its importance, it is necessary to remember the state of the skin in infants affected with measles or scarlet fever. At the commencement of the disease, the dermis is red and swollen; during convalescence the tissues return to their normal condition, but the epidermis, which has been distended, not being elastic, becomes detached, and falls off in the shape of fine powder when the attack of measles has been light, or is removed in large scales when it has been severe, and especially when the eruption has been that of scarlatina. The skin beneath is dry and harsh; perspiration and transpiration are badly performed, and the functions of this important organ are impeded or suspended. When the skin acts badly, the kidneys and the mucous membrane of the air-passages or of the digestive apparatus undertake to supply its place; thence arises a thick, sedimentous, and sometimes albuminous urine, severe diarrhœas, which terminate in emaciation and death; obstinate coughs, sore throats, croup, pneumonias, pleurisies with effusion; finally, serous infiltrations into the areolar tissue of the limbs, or accumulations of liquid in the abdomen, and in other cavities where serous membranes exist. These severe symptoms occur after an exposure to cold of the skin, which inflammation has rendered more sensitive, and the functions of which are interfered with by an inert epidermis, which obstructs its pores. The object of the treatment proposed by M. Scoutetten is to oppose the causes of these symptoms. D.

Treatment of Phthisis by Carbonate of Lead. By M. Beau.

According to M. Beau, it is extremely rare that a case of phthisis is found among workers in lead. The immunity which he had observed in this respect led him to try the efficacy of some of the preparations of this mineral in arresting the progress, and in entirely eradicating the tuberculous diathesis.

He gives the preference in his trials to the carbonate of lead, which preparation being insoluble, he considers as less liable to produce an unfavorable reaction upon the stomach. He administers it in increasing doses, from 10 to 80 centigrammes (2 to 16 grs.) each day, in pill, arresting or suspending the use of it as soon as the patient appears to be sufficiently impregnated; that is, as soon as the symptoms characterizing the first degree of saturnine poisoning appear, such as arthralgia and gesia, lisere, and an icteroid tint.

M. Beau reports five cases, in four of which certain symptoms, especially the cough and the expectoration, seemed to be favorably modified by the use of the carbonate of lead. He does not, however, announce a complete cure, and adds, that as an auxiliary to this medication, it is necessary to support the patient by the best possible means; by nourishing food, wine, tonics, and causing him to observe all the rules of a rational hygiene.—*Gazette des Hôpitaux.* D.

REVIEWS AND BIBLIOGRAPHY.

Five Essays. By J. K. Mitchell, M.D., late Professor of Practice of Medicine, in Jefferson Medical College, of Philadelphia, &c., &c. Edited by his Son, S. Weir Mitchell, M.D. Philadelphia: J. B. Lippincott & Co. 1859.

With one exception, the five Essays which constitute this volume have been previously given to the public. It will, consequently, not be expected that we shall enter into a critical review of the opinions, however novel and somewhat chimerical some of them may seem, which the lamented author has left as a legacy to the profession, and more particularly to those who, as pupils, have listened to that earnest voice which never more can be heard in the clinic and the lecture-room. It must have been a pleasant task for the son to collect and superintend the publication of the thoughts of the father, who has

passed to that bourn where physical ills shall no longer enlist his sympathies or engage his thoughts; and there are doubtless thousands who will be thankful for the opportunity to procure the ever-living thoughts of their dead preceptor.

There are many opinions expressed in the volume before us to which we cannot give our assent, yet to review which at least an entire number of the MONTHLY would be required. We know our readers will thank us for withholding this infliction, and contenting ourselves with a simple synopsis of the contents of Mitchell's Essays.

The first essay is *upon the Cryptogamous Origin of Malarious and Epidemic Fevers*, and occupies nearly 140 pages of the volume. The author differs from all previously expressed opinions in regard to the nature of the epidemic and so-called malarious fevers, in supposing that all such diseases have a *fungous* origin. The reason why the plague, yellow fever, cholera, or the ague prevails, the one in preference to the others, in different, yet, in many instances, similar localities, he thinks is because the fungi differ in different localities. Thus, he says, "The cryptogamous theory will well explain the peculiar domestication of different diseases in different regions which have a similar climate; the plague of Egypt, the yellow fever of the Antilles, and the cholera of India. It accounts, too, for the occasional expansion into unaccustomed places, and their retreat back to their original haunts. Our hypothesis will also enable us to tell why malarious sickness is disproportionate to the character of the seasons; why it infests some tropical countries and spares others; why the dry Maremma abounds with fevers, while the wet shores of Brazil and Australia actually luxuriate in healthfulness." (Page 138.)

To us, these varying developments of disease, in different localities, can as well be accounted for upon the malarious as upon their cryptogamous origin. Grant, if you please, that the isothermal, terrene, and atmospheric relations of Constantinople and New Orleans are not very dissimilar, yet that yellow fever is unknown in the former, while it has often ravaged the latter city. Liebig has demonstrated that animal and vegetable matters, in a state of decomposition, yield different products, according to varying meteorological or sometimes unknown conditions. Hence, we may suppose that, from some cause or causes, the products of animal and vegetable decomposition are different at Constantinople and at New Orleans; giving rise, in the former place, to a miasm deficient in some condition or element requisite for the production of yellow fever. Starch, gum-arabic, and cane sugar are composed of precisely the same elements, and the two latter in pre-

cisely the same proportions; but, from a different arrangement of those elements, their sensible properties are quite dissimilar. From this fact it may be argued that the causative conditions requisite for the production of yellow fever, though all present at Constantinople, have not that peculiar arrangement necessary for the production of the disease. Under these circumstances, these causes will not prove inoperative, but will develop the *plague, cholera, typhus, &c., whichever the conditions are exactly calculated to promote.*

The terrene and atmospheric causative phenomena of epidemic and malarious fevers, and their isothermal relations, are prolific fields of inquiry, and the present occasion somewhat invites us to enter; but having promised to forbear, we do so, reserving for another and more appropriate occasion what we would say upon these subjects.

The author displays much learning in the discussion of his subject, but to us his reasoning seems often quite illogical, certainly inconclusive; while his theory is open to as many, if not more, objections than he urges against the malarious origin of that class of diseases under consideration.

The second essay is on *Animal Magnetism, or Vital Induction*, and occupies 134 pages of the volume. This, to us, is the most interesting paper of the volume. The author enters the difficult and treacherous field of investigation with all his energies, and returns from the labor with a rich harvest of facts, which are presented with that cool and dignified reserve which characterizes the philosopher, unbiased by the dreamy delusions of the enthusiast. For five years Dr. Mitchell pursued his researches, and the results are at least entitled to respect and consideration. The author is a believer in the mesmeric state, but, at the same time, he is a disbeliever in the extravagant and visionary pretensions of most of the professed mesmerists. He believes that about one in ten can be placed in a mesmeric state, independent of or in opposition to his own volition; but he disbelieves that, in that state, men or women can see without eyes, hear without ears, or, in any way, give expression to knowledge not previously known, or at the time surreptitiously imparted. In all experiments upon subjects in the mesmeric state, it is noteworthy that all the mental or emotional demonstrations are entirely suggestive. The subject does and says, on all occasions, what he or she is led to believe that it is expected he or she will do or say. Though a believer in mesmerism, the author exposes the charlatanry and deceptions of the mesmerists with a creditable devotion to his own cautious investigations.

We have not time nor space to give even a synopsis of this able

paper—we recommend its perusal to our readers. In the blind sight-seers and the mesmeric Galens we have never had confidence, and are glad to see the time come when a believer in mesmerism has proved them, from repeated experiments, to be dupes or cheats, and their pretensions altogether delusions. We conclude this part of our notice with a pertinent quotation: "Has mesmerism, after sixty-eight years of zealous labor, presented to science or art one single trophy? It has not, and it remains for the advocates of its intuition to tell us the wherefore." (Page 257.)

The third essay is on the *Penetrativeness of Fluids*, and occupies 50 pages of the book. The fourth essay is on *Penetration of Gases*, and occupies 23 pages. These two essays give evidence of the author's skill in the exact investigations of the laboratory, as well as of the love of truth, and the cautious temper with which he approaches every subject of research. These essays were evidently written previous to the one on the cryptogamous origin of epidemic fevers, and seems to us, perhaps unconsciously to the author, to afford some support and explanation to and of the miasmatic theory.

The fifth and concluding essay is on the *Treatment of Acute and Chronic Rheumatism*, and occupies about 25 pages.

The author believes the disease to be a spinal and not a blood disease. This is in direct opposition to its received pathology, but it is not without plausibility. His treatment consists in local depletion by cups over the spine, evacuants and opiates. If his statements can be relied upon, and upon that point we have no doubts, his success warrants a respectful consideration for his opinions and his practice. We have previously reported two cases of obstinate sciatica, successfully treated with strychnia. (For first case, see AMERICAN MEDICAL MONTHLY for 1857, vol. 8, page 146.) If the centric or spinal nature of rheumatism be established, the *rationale* of such treatment becomes at once apparent.

We have not attempted to give a critical review of the work before us, but to do a more important service to our readers, by giving a synopsis of its contents, that they may the better judge whether they desire to give it a place in their libraries. Though written several years since, the essays were entirely new to us, and we derived much pleasure in their perusal.

The volume is an octavo, bound in muslin, and issued in Lippincott's usually good style. O. C. G.

Poisons in Relation to Medical Jurisprudence and Medicine. By ALFRED SWAINE TAYLOR, M.D., F.R.S., Professor of Medical Jurisprudence and Chemistry in Guy's Hospital, &c., &c. Second American from Second Revised London Edition. 8vo, pp. 755. Blanchard & Lea, Philadelphia. 1859.

The author of this work, who has risen to the most prominent rank among English authors on all subjects relating to legal medicine, is one who is not content to rest the future reputation of a work upon its acquired popularity, but omits no labor and stops at no cost to render the newest edition of his already published works among the very newest, in regard to the subjects treated, of any of the works of the day.

A comparison of each of the successive editions of his treatise on Medical Jurisprudence, from the thin volume which appeared in 1821 to the sixth edition issued by Churchill, in London, in 1858, will show how faithfully he has occupied himself in gathering together new materials, and changing the pages of his volumes by substituting new facts for old ones, where the mention of both would have exceeded the space allotted to the subject treated. In the present edition of the work on poisons, which is intended to be filled with materials of profit to the legal and medical professions, whole chapters have been substituted for old ones in the former edition, in accordance with the author's idea of the requirements of the subject as viewed to-day, and at a period no farther distant than ten years ago.

Toxicology presents so wide a field of inquiry that it would be a hopeless task for a writer to include in one volume of moderate dimensions all the facts and principles involved in its discussion. With this view, our author has excluded a discussion of subjects which belong rather to the history than the practice of this part of medicine, and devoted himself exclusively to an examination of "those substances which, from the frequency of their employment for murder and suicide, are of greater practical importance."

Upon those points which are likely to present themselves in the actual practice of the courts wherever poisons are concerned or suspected, this work offers to the members of the bar and of the medical profession, not only the most recent facts, but reliable deductions as to their application. The cases of Palmer, in which the author appeared in conjunction with Dr. Rees as a witness, of Dove, and the more recent one of Miss Smith in Edinburgh, as well as that of Green in Chicago, are fully detailed. That of Palmer is particularly interesting.

After the decease of Cook, for whose murder Palmer was tried and

found guilty, the stomach and intestines were delivered to Drs. Rees and Taylor for analysis. "On opening the jar," he remarks, "we found the stomach cut open from end to end, turned inside out, with its mucous membrane lying in contact with the intestines." It appears that Palmer threw every obstacle in the way of examination, ordered a coffin for its burial, and but for the timely arrival of Cook's father-in-law and his suspicions of his conduct, would have succeeded. The post-mortem was finally conducted by two young men, one of whom, Newton, was a friend of Palmer, and had secretly supplied him with three grains of strychnia. On the morning of the examination he had taken two glasses of brandy, given by Palmer, and proceeded with his work, with very little knowledge of its true intent, for, as it afterwards appeared, it was the first post-mortem at which he had ever been present. At this examination, at which Palmer was present, everything seems to have been done to destroy the possible evidences of the presence of poison, either by the careless or culpable manner in which it was conducted, and it is somewhat remarkable that in the absence of these evidences a sufficient amount of testimony should have been adduced to fix the guilt upon the prisoner. The whole details of this case, which is one of the most remarkable on record, are here faithfully narrated, by one who, from his personal association with the case, had ample means for obtaining the most reliable information. W.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume VI. Cough—Education. New York: D. Appleton & Co. 1859. 8vo, pp. 772.

The regular appearance of this publication, in accordance with the plan announced by its publishers, gives us additional reason to be proud of the energy and vigor of the book trade of our country. It is a herculean task to prepare an Encyclopædia which shall meet the wants of a people ever advancing to more perfect knowledge, and when moderate success is obtained the authors deserve an expression of gratitude from us. We have already spoken favorably of the volumes of this work as it has left the press, and have no doubt but that its circulation will be most extensive through our land. Generally, the articles are calm and temperate; occasionally showing the bent of the writer, by their inordinate length, and by the treatment of a person in every respect unworthy of notice in a book of reference of

this kind. Fred. Douglas receives forty-eight lines of a description, while Ben. Banneker receives but twenty-five. Both were negroes—the latter a man of most astonishing mathematical abilities, employed in laying out Washington City, recognized by Jefferson and Condorcet on account of his talents—the former a mere garrulous representative of disunionism and sectionalism. Surely this *should not* be, while some of the prominent politicians of the day are omitted. Why should the clairvoyant, Andrew Jackson Davis, have more than ninety lines devoted to a description of his life and performances, while H. Winter Davis, one of the most eloquent men in the House of Representatives, is not considered worthy of a line? We suppose, however, that the editors are often imposed on by their collaborators, and it is our hope that, by pointing out these minor defects, they may be avoided in subsequent volumes. Make the Cyclopædia a national work, and crush all efforts to convert it into anything else.

In the article Drummond Light, the writer says nothing about the real discoverer of the principle on which this means of illumination is constructed. The name of the discoverer has been lost sight of, while that of Drummond, who first employed it practically, has been given to it by the world—a similar case of that of Columbus and Vespuccius. The Drummond Light is a mere application of Hare's Compound Blowpipe. In 1802 Dr. Hare published an account of the immense heating powers of a flame of hydrogen when mixed with oxygen gas in proper proportions, showing that bodies ordinarily infusible could be melted, (Hare fused 28 ounces of platinum,) and that those which were not fused, as quicklime and magnesia, became incandescent, throwing off a beautiful white light. If ever honors were stolen from a man, it was when the name of Drummond was appropriated to the discovery which the genius and untiring industry of the late Professor of Chemistry in the University of Pennsylvania had made and perfected. L. H. S.

SELECTIONS.

On the Indications for Blood-Letting. By Prof. Skoda.

In the course of his clinical lectures, Skoda had occasion to make some remarks on the indications for blood-letting, of which the following is the substance: Venesection is only justifiable when, by reduction of the quantity of the blood, dangerous contingencies, which have a

distinct relation to the general mass of the blood, can be thereby removed. Inflammatory disease is of itself no indication, and equally valueless is the so-called nature of the fever—inflammatory, adynamic, etc. The condition of the pulse, as to strength and feebleness, is more the subjective idea of each individual physician, and cannot, therefore, be adopted as a directing indication for venesection. Real or apparent debility is a term conveying no more certain meaning, for the debility may be either muscular, mental, or merely relates to the senses; while others include in the term diminution of the pulse, or of the temperature, the remarkable observation, that the great muscular debility of many febrile diseases is often much lessened by bleeding, and which led to the supposition of a false debility, produced by oppression of the nerves, removable by blood-letting. But this fact is equally explicable by the consideration that muscular debility diminishes with the diminution of the fever, and this is equally striking whether venesection have been used or no. Only, blood-letting is a new loss, which must be added to that already caused by the febrile movement. Many people can withstand the loss of blood better than others; and there can be no doubt that a certain amount of blood may in some produce derangements only to be speedily removed by blood-letting. That, however, is but an individual case, and can no more be elevated to a general rule, than the similar fact that some individuals cannot bear, in the smallest doses, medicines which in others produce their beneficial effects only in very large ones. Accordingly, we may, in robust individuals, employ blood-letting even to allay certain symptoms not having a distinct connection with the amount of blood; but a favorable result in their cases must never induce us to extend the practice to patients already anæmic, and such practice must be carefully avoided in diseases which tend to terminate in anæmia. Loss of blood will be borne well so long as sufficient remains for the nourishment of the organs. The inevitable alteration in the composition of the blood, consisting, as it does, chiefly in an increase of water, is speedily corrected by the secreting organs. Serious disturbances only present themselves in such as are incapable of replacing the blood lost, or in whom the loss goes on faster than is compatible with due nourishment. Venesections, performed from time to time, are often borne without detriment; how long this may be continued we cannot distinctly say. Blood-letting in acute inflammatory diseases, when not too frequently or too largely practiced, has no influence in hastening or retarding the convalescence; this depending solely on the slower or more speedy return of the diseased organ to its normal state. The sole indication for blood-letting is, therefore, the necessity of subduing dangerous symptoms, whose occurrence has a determinate relation to the amount of blood, and exceptionally, in cases where experience has shown that troublesome symptoms may be thereby relieved; but in such cases the individuality of the patient must be carefully kept in mind. Venesection is always to be avoided in feeble persons, and in attacks which are apt to recur, (as hysteria and hypochondria.)—*Wien Allg. Med. Zeitg.*, 1858, 28, 29, and *Prager Vtljschft.*, 1859, Bd. i.—*Edin. Med. Journ.*

On Jerking Respiration, (respiration saccadée.) By Dr. A. Bourgade. (Archives Générales, November, 1858.) *Brit. and For. Rev., April,* 1859.

Dr. Bourgade is of opinion, and we think justly, that the profession have not paid sufficient attention to interrupted or jerking respiration, as one of the earliest symptoms of pulmonary tubercle. He details nine cases, and states that he has observed others, in which jerking respiration heard at the apex of one lung was the first auscultatory phenomenon indicating the deposition of tubercle subsequently proved by more palpable symptoms, and in part confirmed by post-mortem examination. In discussing the rationale of its production, he quotes one post-mortem examination, which absolutely disproves the views of Messrs. Barth and Roger on this point. They hold that it is due to the presence of the adhesions which are so frequently met with at the apex of the lungs in phthisical subjects. In the case in question there were no adhesions at the apex or about the middle of the lung in which the jerking respiration had been heard. It is to be remembered that the symptom is most commonly met with at a time when no evidence exists of preceding or accompanying pleurisy; the character of the sound and the structure of the parts in which it is found have always seemed to us to justify our attributing it to a partial constriction of the smaller bronchi, owing to adjoining tubercles pressing upon them, the effort of inspiration causing the successive opening of the obstructed passage. We have met with cases in which spasm appeared to be the cause of the constriction; but we hold with Dr. Bourgade that, in the great majority of cases, jerking respiration is a sign of tubercular deposit.

We would endorse the following summary of observations made by Dr. Bourgade. Respiration is jerking when the respiratory murmur presents three or four brief intervals, and the ausculting ear experiences the sensation of a certain difficulty in the expansion of the pulmonary tissue from the prolonged expiratory murmur. The respiratory murmur otherwise preserves its normal timbre, and the symptom is chiefly observed during inspiration; it occurs, but less frequently, during expiration. This change in the respiratory murmur does not persist beyond a limited period; a prolonged expiratory murmur follows, or, more rarely, progressive diminution of the respiratory sound. This fact probably explains the circumstance of the symptom having been overlooked by many hospital physicians, who, seeing phthisis chiefly in its more advanced forms, do not meet with jerking respiration here as frequently as in private or extra-hospital practice. Jerking respiration is commonly limited to the apices of the lungs, which we should explain by the greater resistance of the parietes of these parts favoring the pressure of tubercle upon the adjoining bronchial tubes. When the patient is made to breathe more fully, the symptom is not rendered more palpable, but commonly disappears altogether. Jerking respiration is not always continuous, but at times presents regular intermissions; it may occur at every second, third, or fourth inspiration, sometimes even at greater intervals. It is chiefly at its

first appearance that it presents this character, but when well marked it is commonly continuous; like other auscultatory phenomena, it may vary in strength and precision from day to day.

In concluding his paper, the author, though attributing much more importance to jerking respiration as an early sign of pulmonary tubercle, states he does not regard it as an absolute evidence of the deposit having taken place; for this purpose he justly requires the presence of collateral, general, or local symptoms.—*Charleston Med. Journ.*

On Intermittent Fever; the Result of the Observations made during several Epidemics. DR. HEIDENHAIN, in Marienwerder. (Archiv fur Pathologische Anatomie, Band xiv., Hefte 5 and 6.) *Brit. and For. Rev., April*, 1859.

This paper is one of interest, as bearing upon the question of the change of type of disease generally, as well as on account of the special matter to which the other devotes his attention. Marienwerder, a town of Western Prussia, not far from the delta of the Vistula, is the seat of intermittent fever and its congeners; and Dr. Heidenhain, having been in practice in that town and its vicinity for twenty-eight years, gives us the results of his experience during that period. He commenced his practice in 1831, shortly after cholera had claimed its first victims in the district surrounding Marienwerder. This town and the immediate vicinity had been spared, but instead of cholera there was an epidemic of gastric or bilious febrile conditions, with a remittent, or more frequently, intermittent type. Gastric, bilious, and intermittent fevers almost disappeared when the cholera actually invaded Marienwerder; but the cholera itself assumed an intermittent character of the tertian type in some cases. On the cessation of cholera in 1831, intermittents ceased entirely in Marienwerder, and did not occur in the epidemic form until 1849. Even in the August of 1844, when the valley at the foot of the heights upon which Marienwerder is built was flooded by the Vistula, and after the subsidence of the waters the atmosphere was poisoned with effluvia of decomposing vegetable matter, intermittents did not make their appearance. During these eighteen years febrile intermittents only occurred sporadically; the paroxysm was not ushered in by a severe rigor, but merely by a passing sense of cold, and the other symptoms of fever were not strongly marked. These affections were cured by large doses of quinine. In the place of genuine intermittents, intermittent neuralgic affections made their frequent appearance; the nerves affected were almost exclusively the first and second division of the fifth pair; the patients were affected with severe hemicrania for three or more hours; the forehead, the orbital region, the cheek, half the nose and lip were the seat of the affection; the face was pale, at times slightly swollen, the eye dull, the pulse small, no trace of fever, the hands cool; the type was quotidian or tertian. The paroxysms commonly occurred in

the morning, without premonitory symptoms, and ceased almost as suddenly. Twice the author observed similar neuralgic affections in the nape of the neck, and once in the right tibial nerve; in the last instance the subject affected was a multipara, in whom the neuralgia took the place of the after-pains immediately after confinement; the neuralgia lasted eight hours, then put on the tertian type. In addition to these neuralgic intermittents, the doctor observed a convulsive intermittent disease in children. It occurred between the years of two and nine, and the affection was at times difficult to distinguish from an apoplectic condition, unless reference was had to the intermittent type. Dr. Heidenhain's description is briefly this: The child loses conciousness, the eyes are closed, the pupil enlarged and sluggish, the head hot, the facial muscles are distorted by convulsive movements, the lips quiver or are drawn on one side, permitting the passage of frothy saliva, at times tinged with blood; it is almost impossible to effect deglutition. The extremities are violently thrown about; breathing is short and intermittent; there are suffocative attacks; profuse perspiration breaks out over the body. After four, six, or eight hours, the symptoms abate, and the child appears to wake up exhausted, but otherwise is comparatively healthy.

In the autumn of 1849, with the cholera, all the forms of intermittent fever returned with great frequency; but in 1850 and 1851 they increased still more; and in 1852, the bad year of the cholera, they were at their maximum, but did not, as in 1851, disappear with the cholera, but retained the prominent form of disease until the autumn of 1856, since which time they have diminished. The paroxysms were not characterized by severe rigors, and the cold stage was uniformly short, compared with the length of the hot and sweating stages. The affection attacked all ranks and ages, however favorable the circumstances and healthy the dwellings of the individuals. A characteristic feature during this period was the severe pain which, in the fever, often affected the lumbar and sacral regions, and the tenderness of the last cervical and first dorsal vertebræ. This "spinal irritation" disappeared on the curative effect of the treatment being manifested.

During the period last spoken of, in addition to the neuralgic affection, neuroses of the motor nerves have made their appearance. Intermittent affections of the vaso-motor system of nerves have also been observed, such as intermittent ophthalmia with a tertian type; the pain was unusually severe in these cases, and out of proportion to the severity of the inflammatory symptoms.

Enlargement of the spleen and anasarca are the chief sequelæ which the author has met with. Of the latter he says, that it used, previous to 1854, never to be associated with albuminuria, but that since that time the majority of cases exhibited albuminous urine; these cases commonly proved fatal.

With regard to the treatment of all these various conditions, Dr. Heidenhain recommends that no energetic treatment be adopted during the paroxysms, not even in the convulsive intermittent affection of children. Quinine is his sheet-anchor, given in large doses during

the free intervals; he has found eight grains generally suffice for an adult, given about the middle of the free interval, or immediately after a paroxysm.—*Charleston Med. Journ.*

On the Treatment of Hooping-Cough.

Notwithstanding the notion extensively prevalent, that hooping-cough is uncontrollable by remedies, or that it can only be benefited by change of climate, there is no reason to doubt, that if brought early under treatment, the symptoms may not only be moderated, and other contingent diseases warded off, but its duration may be materially shortened. Enough has been said on the subject to substantiate this assertion. Thirty-five cases brought under treatment, after an average duration of more than three months, were all cured in less than twenty-five days in the aggregate, and would doubtless have experienced the same beneficial result in about the same length of time, had they been brought six or eight weeks earlier. This assertion is further borne out by this fact, that of eighty-seven cases brought for treatment within fourteen days of their commencement, the time occupied by the treatment was still the same as that of the general average, but the whole duration of the complaint was only thirty-seven days, that of the whole number, excluding the neglected cases, being forty-two days, and the term of the decidedly neglected cases, 111 days. Further, of the eighty-seven cases above named, thirty-two had an average of eleven days, in which the whole term of the complaint was thirty-five days; and fifty-five cases, with an average existence of five days on admission, the whole term was reduced to thirty-two days.

The remedies employed were, in the simple cases, or when the complicated cases had been reduced by other treatment to this condition, Dover's powder alone, or combined with camphor, camphor inhalations, emetics, belladonna, and local irritants, but always with either opium (Dover's powder) or belladonna as a principal remedy. Sometimes the Dover's powder was replaced by tincture of opium, given in camphor or other aromatic water.

Opium was commonly given in form of Dover's powder, in doses of one grain, or one or two drops of the tincture in aromatic water, twice or thrice daily. The Dover's powder was frequently combined with an equal quantity of camphor, and sometimes with half a quarter of a grain of calomel, twice or three times daily, for a child twelve months old. This mode of treatment had an excellent effect in many cases. An equally successful result was often obtained by an emetic (five grains or more of Ipecac. Pulv.) given in the morning, and two grains of Dover's powder, with or without camphor, at bedtime; no other medicines in the interim. By these measures fifty-eight cases were treated and cured on an average of twenty-eight days.

Belladonna was used in seventy-six cases. It was given in the form of powder of the leaves, never the extract, as this is an uncertain prep-

aration; and sometimes in form of solution of the nitrate of atropia. When in the form of powder, half a grain, mixed with five grains of sugar, was given to a child twelve months old twice a day; then, after two days, if well tolerated, three times; then four times a day, or oftener, and in larger doses; being gradually increased, until a specific effect was produced. The solution of nitrate of atropia was so prepared as to contain one-ninety-sixth of a grain in a teaspoonful of the liquid; this dose equal to about half a grain of the powdered leaf, so that a teaspoonful of it may be given twice or thrice daily to a child one year old.—*Dr. Whitehead's Report of Clinical Hospital for Diseases of Children.* Manchester, 1859.

On Croup. By Dr. Luzsinsky.

Dr. Luzsinsky, director of the Mariahilf Children's Hospital, Vienna, in a long communication on croup, recommends the following treatment: Every child with a hoarse voice and the peculiar cough, and some fever, must be at once put to bed, and gentle perspiration induced. If, now, the voice becomes clearer, the cough loose, and the nose run, the danger is over. Should, however, the unfavorable symptoms continue or increase, and the breathing become more difficult, then more energetic means must be used. 1. To alter the blood crasis. 2. To prevent the localization of the inflammation in the larynx. 3. To prevent laryngeal spasm. 4. To destroy the membranous exudation, and promote its escape. The first indication is fulfilled by the alkaline carbonates, which dissolve albuminous and fibrinous products. L. gives daily from $\frac{1}{2}$ to 2 drachms of carbonate of potass, dissolved in 2 ounces of water, and sweetened with half an ounce of syrup, till the cough becomes soft and loose. The second indication is best fulfilled by the energetic local application of cold. The whole body is well covered, and kept warm and dry; the neck is bared, and assiduously fomented with ice-cold water, the patient getting at the same time a constant supply of ice-cold milk and water in small quantities; this treatment is continued from one to three days, till the inflammatory symptoms begin to yield, when the cold is gradually left off and more nourishment given. L. objects entirely to local blood-letting, and where the application of cold is objected to, is in the habit of replacing it by a blister, the size of half a crown, on the manubrium of the sternum, which is to be kept open by epispastics. The third indication L. attempts to fulfill by the free exhibition of opium acet. of morphia, $\frac{1}{6}$–$\frac{1}{4}$ gr. in 2 ounces of water, and half an ounce of syrup, to be given at longer or shorter intervals, according to the amount of dyspnœa, cough, and restlessness present. To fulfill the fourth indication, L. sponges the fauces and larynx several times a day with a solution of nitrate of silver, 4–8 grs. in half an ounce of water. When the pseudo-membrane loosens, and the larynx gets filled with tough mucus, impeding the respiration, L. gives emetics,

sulphate of copper 4–8 grs., in ℥ijss. sweetened water, a dessert-spoonful every ½ or ¼ hour. L. is opposed to tracheotomy, but rather inclined to catheterize the trachea. Among 38,000 patients, L. has had 90 cases of croup, (55 boys, 35 girls,) of whom there were—

under 1 year old,	11	4 to 5 years old,	9
1 to 2 ..	16	5 to 6 ..	15
2 to 3 ..	16	6 to 7 ..	14
3 to 4 ..	8	9 ..	1

Of these 90 cases only 15 died. L. groups them in three divisions. The first—characterized by persistent rough voice, short, raw, barking cough, difficult breathing, with occasional sibilant râle, and more or less fever—were 36 in number, and all recovered. The second division comprehended all cases marked by a weak, thin, shrill voice, hollow tubular cough, laborious respiration, feeble and often hissing respiratory murmur, and great restlessness; of such there were 43, of whom 34 recovered, and only 9 died. In the third group the voice was reduced to a faint whisper, the cough choked and scarce audible, and there was great orthopnœa; of such there were 11, of whom 6 died. The result speaks favorably for the practice.—*Journal f. Kinderkrankheiten*, 1857, 9, 10.—*Ed. Med. Journ.*

Observations on the Treatment of Diphtheritic Angina and Laryngitis in Children. By DR. HAUNER.

Both diseases occur only in feeble children, debilitated by previous diseases, mostly, however, in such who have suffered either recently or some time previously from an exanthematous disease. Diphtheritis is contagious, and can be transmitted from sick to previously healthy children; it may become fatal by general infection, pyæmia, or loss of strength, as well as by propagating itself to the larynx, bronchi, and lungs. That treatment will alone be successful which endeavors to stop the progress of the diphtheritic process to important organs, anticipating it, as it were, by local means, and which tries to strengthen the constitution by internal remedies. The antiphlogistic treatment is decidedly obnoxious. Of all local remedies, the author considers nitrate of silver the most efficient; he applies the caustic in substance to the diphtheritic layers in the mouth, on the uvula, throat, etc., and takes care to carry the application somewhat beyond the diseased surface. Instead of the stick, a strong solution of nitrate of silver (℈j.–ʒss. to ℥j. of distilled water) may be used. In regard to the prophylactic value of this local treatment the author observes, that he has not seen a single case of diphtheritis of the mouth and throat in which the disease spread and reached the larynx after having been thus treated. But even in diphtheritic croup nitrate of silver is useful in combination with the internal treatment; the application is, in this case, made by means of a whalebone probang having a pencil of charpie attached to its extremity, or finely-powdered lunar caustic, (gr.

iij.–iv.) quickly blown in through a quill, the tongue being depressed by a spatula. In some cases the author prescribed, at the beginning of the disease, an emetic of ipecacuanha, and found it decidedly useful. In regard to the internal treatment of diphtheritis, it is particularly necessary to enjoin a generous diet, (good broth, Liebig's extract of meat, coffee, beer, wine, &c.) The best internal remedy is quinia, given with alternate doses of chlorate of potassa, (ʒss.–j. to ʒiij.–iv. of distilled water;) the latter remedy exerts a very favorable influence upon the local diseases of the mouth and throat. A useful adjuvant in the treatment of diphtheritic angina and laryngitis is the local application of moist heat by means of compresses soaked in water, and covered over with a dry linen cloth, or other material, to retain the heat and moisture. The author finally cautions against the treatment of diphtheritic croup by bleeding, mercurial ointment, calomel, tartar-emetic, etc. By making a careful examination of the patient, and by taking the constitution and the previous history of the child into consideration, it will not be difficult to distinguish diphtheritic from true laryngeal croup.—*Œsterreichische Jahrbücher für Kinderheilkunde*, 1859, II. 2.

Treatment of Asthma by Stimulants.—Theory of the Modus Operandi of Stimulants.—Illustrated by Coffee.—Curative Influence of Violent Emotion.—Its Action analogous to that of Stimulants: Acts also as a "Nervous Derivative."—Cases. By Hyde Salter, M.D., F.R.S., Assistant-Physician to Charing Cross Hospital.

One of the commonest and best-reputed remedies of asthma, one that is almost sure to have been tried in any case that may come under our observation, and one that in many cases is more efficacious than any other, is strong coffee. To the question, "Have you tried strong coffee?" the asthmatic is pretty sure to answer "Yes;" and he is also pretty sure to add that it gives him relief.

About the *modus operandi* of this remedy I was long puzzled; I could not make it out; and it is only lately that I think I have stumbled upon it. The *rationale* of its efficacy is, I think, to be found, on the one hand, in the physiological effects of coffee—the particular nervous condition that it produces—and, on the other, in a feature in the clinical history of asthma which I have long observed, and of which I think the efficacy of coffee is highly corroborative.

This fact is, that *sleep favors asthma*—that spasm of the bronchial tubes is more prone to occur during the insensibility and lethargy of sleep than during the waking hours, when the senses and the will are active. I have already referred to this in my observations on the "Clinical History of Asthma,"* in explaining why the paroxysm invariably (or almost invariably) chooses the hours of mid-sleep for its onset. Let me just refer to this subject again; for it is both interesting and important, as it explains a curious and very constant phenom-

* *Medico-Chirurgical Review*, July, 1858 and 1859.

enon in asthma—the hour, namely, of the attack—is highly illustrative of its pathology, and furnishes the key to some of its treatment.

I think, then, that sleep favors the development of asthma in two ways:

1st. By producing insensibility to respiratory arrears.

2d. By exalting reflex action.

The way in which sleep favors the development of asthma, by producing insensibility to respiratory arrears, and exalting reflex nervous action, I have already sufficiently explained in the papers on the Clinical History of Asthma, to which I have referred.

There can be no doubt that sleep *does* exalt reflex nervous action. It is a fact, so abundantly inculcated by the history of disease, as hardly to require illustration or proof. The phenomena of epilepsy, cramp, lead tremors, and other examples of deranged muscular action, all teach it. It is just as sleep comes on, just as the will is laid to rest, or during sleep, that these different forms of involuntary muscular contraction most commonly occur. Any one, to convince himself of it, has only to fall asleep sitting on the edge of his chair, in such a position that it shall press on his sciatic nerves. As long as he is awake his legs will be motionless; but the moment he falls asleep they will start up with a plunge and suddenly wake him. As soon as he is awake they are quiet and still again, with no disposition to start, till he again falls asleep, and that moment they start again and wake him; and so he may go on as long as he likes. He changes his position, sits back in his chair, and they start no more. I need not explain what so clearly explains itself. I heard, some years ago, of a case of what might be called chronic traumatic tetanus, in which the source of irritation—the excito-motory stimulant—was extensive disease of the hip-joint. The moment the patient fell asleep he was seized with opisthotonos, which, of course, immediately woke him. On awakening, the tetanus vanished; on again falling asleep, it reappeared; and this alternation of falling asleep and waking continued for weeks, if not for months, the patient getting no continuous rest till he was quite worn out. As long as he was broad awake the tetanus never appeared.* Hosts of similar facts, illustrative of the same truth, might be cited.

Anything that exalts reflex nervous action, increases, of course, the potency of reflex stimuli. Now, I have elsewhere endeavored to show that the phenomena of asthma are, in almost every case, those of excito-motory action, and that the exciting causes of asthma are, in the great majority of instances, such as act by a reflex circuit. They would, therefore, on the asthmatic's falling asleep, immediately acquire a potency they did not before possess, just as the pressure on the sciatic nerve did, in the illustration I have given. Thus it is we see that the asthmatic may gorge himself with unwholesomes, and yet,

* I was further informed, respecting this case, that, after everything else had failed, sleep was procured, with an immunity from the tetanic spasms, by putting the patient into the mesmeric state. In this way he got rest, and greatly improved; but what was the ultimate issue of the case I do not know.

as long as he keeps himself awake, suffer no consequential asthma; the irritant is there, the undigested food is in the stomach, but as long as he is awake, as long as the will is dominant, it is inadequate to the production of reflex phenomena. But let him fall asleep, and in an hour or two the paroxysm will be established.

And not only will *sound sleep* determine, by this exaltation of reflex susceptibility, the production of asthma by its exciting causes, but a small dose of the same condition—sleepiness, drowsiness—will favor the supervention of asthma in a proportionate degree. Not only is drowsiness a premonitory sign of an attack, but a powerful predisposer to it; and the asthmatic knows that he yields to it at his peril. I have often noticed in asthmatics that the sleepiness that is so apt to come on after dinner will be accompanied by a slight asthmatic oppression and wheezing: as the drowsiness deepens, so does the asthma, and in this way it may settle down into an attack; but if the patient rouses himself, or if anything occurs to engross his attention so as to wake him up, broad awake, the asthma quickly vanishes. It is in this way, I think, that is to be explained the fact, that asthmatics can dine out late and unwholesomely with impunity; while, if they dine at the same time and in the same way at home, asthma is sure to come on. At home they want that excitement which at a dinner-party keeps the animal functions in a state of exaltation and the mind vividly awake, and effectually banishes the least approach to drowsiness. Of the fact there is not the slightest doubt. I know an asthmatic who can with impunity dine out at seven o'clock, as dinner-eaters of the nineteenth century are apt to dine—shirk nothing from soup to coffee—walk home at ten o'clock, a distance perhaps of four miles, with the wind of a deer-stalker—go straight to bed, and get up the next morning scathless; but if he were to dine at home at six, or even at five o'clock, he would be wheezing at nine, and by four the next morning downright asthmatic.

I believe a certain amount of the curative influence of fright, or other strong mental emotion, is to be explained in the same way.

"But why," it may be asked, "all this roundabout digression? What has all this to do with the curative influence of coffee?" I believe it is simply its explanation. For, what are the physiological effects of coffee? They consist in the production of a state of mental activity and vivacity, of acuteness of perception and energy of volition, well known to those who have experienced it, and to a certain extent very pleasurable, and which is the very reverse of that abeyance of will and perception which, in drowsiness or sleep, so favors the development of asthma. In sleep, will and sense are suspended; after taking strong coffee, they are not only active, but exalted. It produces rapidity of thought, vivacity of spirits, clearness of apprehension, increases tenfold the working powers, and altogether intensifies mental processes. Not only is there no disposition to sleep, but sleep is impossible: the thoughts hurry one another through the mind; the bodily movements are energetic and rapid; and if the effects of the drug are pushed far, a very unpleasant condition is pro-

duced, something like that of delirium tremens, *minus* its hallucinations. Now, if the suspension of the will, or its depression, favors the production of excito-motory phenomena, and thus favors the development of asthma, is it unreasonable to suppose that its exaltation should prevent or cure it? It *must* do so—if not positively, at least negatively, by removing the predisposing condition. And bearing in mind this marked physiological effect of coffee—that this exaltation of the animal nervous functions is exactly what it produces—it certainly does seem to me reasonable to suppose that this is its *modus operandi.* And if of coffee, then of strong tea, and alcohol, and ammonia, and ether, and other stimulants of undoubted value in asthma.

To show that this is the *rationale* of the cure of asthma by stimulants, I do not think it is necessary to show that it is only when the asthmatic is drowsy, or has been sleeping, that they do good. If anything that rouses the asthmatic to a state of wakefulness will put a stop to asthma that was creeping on him while he was sleeping or sleepy, *à fortiori* anything that carries him beyond a state of mere wakefulness—that gives him an active, not a mere passive wakefulness, will be still more efficacious, and will be adequate to the checking of an attack that, in spite of his being broad awake, was gaining on him.

The very frequency with which coffee gives relief, makes it hardly worth while for me to narrate the history of any cases. I should think, from my own experience, that coffee relieves asthma in two-thirds of the cases in which it is tried. The relief is very unequal, often merely temporary, and sometimes very slight; sometimes it is complete and permanent. It is often taken in the morning; and patients will tell you that, previous to taking their coffee, they are not fit for anything, can hardly move about; but that taking it is immediately followed by freedom of breathing, and an ability to enter at once on their daily occupations.

There are two or three practical hints with regard to the administration of coffee that are worth bearing in mind.

1. It cannot be given too strong. Unless sufficiently strong to produce its characteristic physiological effects it does no good, but rather harm; moreover, if given very strong it need not be given in much bulk, and quantity is a disadvantage—its effect is less rapid, and it oppressively distends the stomach.

2. I think it is best given without sugar and milk—pure *café noir.*

3. It should be given on an empty stomach; if given on a full stomach it often does great harm, by putting a stop to the process of digestion; indeed, so much is this the case, that I consider coffee accompanying a meal, especially late in the day, so peculiarly apt to induce asthma, that it deserves to be classed among its special provocatives. I have mentioned elsewhere the case of an individual who never dared to take the usual after-dinner cup of coffee—it would make the simplest dinner disagree with him. But the same asthmatic

found in strong coffee, on an *empty stomach*, one of his most valuable remedies.*

4. For some reason or other, I don't know why, it seems to act better if given hot—very hot.

I adverted just now to the influence of mental emotion on asthma, and stated my belief that its *modus operandi* was, like that of coffee and other stimulants, by producing an exaltation of sense and will—an intense activity of the intellectual part of nervous action—and proportionately lessening the tendency to excito-motion; and this it does to a much greater degree than stimulant remedies, and its effects are, therefore, proportionately more sudden and complete. It was, indeed, the curative influence of violent emotion, and the observation that it and coffee-taking alike banish that condition in which asthma is most prone to come on, that first suggested to my mind the theory of the action of stimulants on asthma that I have just endeavored to propound. I think, too, that mental emotion acts, if I may so express it, as a nervous derivative. There are many phenomena, both in health and disease, that seem to show that only a certain amount of nervous activity can be in operation at a certain time; and that, if a nervous action of one kind comes into operation, another that had been previously going on is immediately depressed or arrested. Such is the explanation of the well-known experiment of the two dogs, one of which was taken hunting immediately after a meal, while the other was allowed to sleep. In the one that was taken hunting, digestion, on its return, was found hardly commenced; in the other it was completely over, and the stomach empty. In the sleeping dog the whole vital dynamics, not being otherwise employed, were appropriated by the function of digestion; while in the hunted dog they were entirely taken up by its energetic locomotion, and drafted away, as it were, from that nervous superintendence of digestion without which the function cannot be carried on.† The power of strong emotion, or hard study, in retarding digestion, is an analogous fact. Just in the

* Since writing the above, I have received the following account from an asthmatic gentleman, singularly confirmatory of my own observations:

"I used to think," writes my informant, "strong coffee the best of all remedies. I remember one instance especially, only a pattern of many others, but more striking when told. With bent back, high shoulders, and elbows fixed on the chair-arms, I had been laboring for breath all the afternoon. About five o'clock I had two breakfast-cups of strong coffee. The hard breathing disappeared rapidly and completely. My sisters were dancing in the next room, and in less than an hour I was dancing with them, quite free from asthma.

"Of late, coffee has often had an opposite effect upon me. The after-dinner cup of coffee, to which I have been for several years habituated, now produces a sensation of stuffing of the chest, and incapacity of moving about. I believe this is because it stops digestion; and the reason I did not suffer for some years I take to be, that my originally most excellent and enduring stomach could stand it so long, and no longer. Coffee, on an empty stomach, I still deem a most valuable remedy. I do not share the prejudice against putting milk and sugar into coffee that is used as a medicine, provided that it remain *café noir*, and be not made *café au lait*."

† See Dr. John Reid's experiments in Todd's *Cyclopædia of Anatomy*, vol. iii., p. 899; also those of Bernard and of Bischoff, in Müller's *Archiv*, 1843.

same way, I think, the extraordinary activity and exaltation of thought and perception, that characterize the state of mind that the taking of coffee, ether, and other stimulants produces, acts as a nervous derivative in asthma, and diverts from the nervous system of the lungs that morbid activity which engenders the spasm of the bronchial tubes.

The cure of asthma by violent emotion is more sudden and complete than by any other remedy whatever; indeed, I know few things more striking and curious in the whole history of therapeutics. The remedy that stands next in speed and efficacy—tobacco pushed to collapse—takes time, a few minutes at least; but the cure of asthma by sudden alarm takes *no* time; it is instantaneous, the intensest paroxysm ceases on the instant. This is a fact so little known, as far as I can see, and yet so practically important and theoretically interesting, that I think it will not be unprofitable if I endeavor to impress it more deeply by the narration of some cases of its occurrence.

CASE I.—A gentleman suffering an unusually severe attack, so bad that he had been unable to speak or move all day, was suddenly alarmed by the illness of a relative: he ran down two flights of stairs and up again, and administered the restoratives he had procured, and then observed, to his astonishment, that his asthma was gone. This gentleman tells me, that on many other occasions different forms of mental emotion have cured his asthma.

CASE II.—C. R., a confirmed asthmatic, states that, when he was suffering from an unusually severe attack, a fire occurred just opposite his house. Previous to the occurrence of the fire he was in bed, breathing with the greatest difficulty, and unable to move. When the excitement of the fire was over, he found that he had been standing in his night-shirt, looking, with the rest, out of the window, and that he had quite forgotten all about his asthma. His breath was not quite well the rest of the day, but nearly. On another occasion, when he was suffering from an attack, some sudden anxiety arose about two of the members of his family being out late: the alarm from which he suffered relieved his asthma, but not so suddenly as in the case of the fire. On another occasion, a sister of his was seized with sudden illness that seemed to threaten suffocation: he was suffering severely from asthma at the time, and was in bed; he jumped out of bed in great alarm, and found then that his asthma was perfectly cured. He was sufficiently well to run for a doctor, and continued well throughout the day.

CASE III.—Not long ago I was informed by a patient at the hospital, who had suffered greatly for many years, that however severe an attack might be, venereal excitement would almost invariably cure it. He told me also, that, when a youth, he had been guilty of the practice of onanism, and that the unnatural excitement thereby produced had just the same curative effect on his asthma. Indeed, he pleaded this effect of it as a sort of excuse for the practice; and assured me that when his breath was very bad at night he used to resort to it for the purpose of curing it.

I have known two or three cases in which sexual excitement has had just the same effect.

Case IV.—The following account of the curative influence of mental excitement I have received from a medical friend, who has suffered from asthma all his life: "On one occasion I was sitting with fixed elbows on a sofa, breathing hard: a lady came into the room whom I had known very well, and whom I had not seen for several years. I got up to receive her, and sat down again on a music-stool; with no especial purchase, therefore, for the respiratory muscles, and yet with comparative ease of breathing. This ease lasted for about an hour, and then the difficulty of breathing came on again. I attribute the temporary amendment to the diversion of nervous energy. Just the same thing has happened to me more than once. On another occasion I was suffering a good deal at a farm-house. I got on horseback with some difficulty, and an anxious hope that the horse would go quietly, to fetch myself an emetic from a town three miles off. The horse ran away with me. I pulled in, at first weakly and almost despairingly, but the need of exertion brought the power: after a run of about a mile I succeeded in pulling up, and was delighted to find my asthma gone. Another time I was breathing very hard, and a friend engaged me in an argument. At first I could only get out a sentence in successive gasps; but gradually, as I got excited, the hard breathing went off, and I could talk fluently."*

From the foregoing observations, then, I think we may conclude—

That, since the abeyance of the will favors, in proportion to the degree of that abeyance, the development of asthma, and since the effect of strong coffee is to dispel such suspension or depression of volition, and restore the will to its wonted (or even an unwonted) activity, it is by thus exalting the will, and so disfavoring the development of excito-motory action, that this remedy relieves asthma.

That the same interpretation applies to the relief of asthma by all other stimulants whatever.

That thus strong coffee and mental excitement, although apparently so different, belong to the same category of remedies for asthma.—*Edinburgh Medical Journal*, June, 1859.

On Gonorrhœal Rheumatism. By M. Rollet.

Notwithstanding what has been written on the subject, this affection is not universally admitted; and Professor Thiry, of Brussels, has recently formally denied its existence—there being, in his opinion, no rheumatism that can be legitimately called gonorrhœal, but only instances of arthritis coinciding with gonorrhœa, without any relation of cause and effect. M. Rollet, of Lyons, has, however, just published a memoir, in which he maintains the reality and peculiarity of this

* For additional cases of the cure of asthma by mental emotion, I must refer the reader to a paper on the Pathology of Asthma, in the *British and Foreign Medico-Chirurgical Review*, for July, 1858.

form of rheumatism. First, the frequency with which gonorrhœal subjects become affected with rheumatism is greater than it would be if it were a mere coincidence; and next, there is the repetition of the rheumatism so often met with in a given individual on the occurrence of a new, or the revival of an old gonorrhœa. While, too, it resembles ordinary rheumatism, it differs from it markedly, not only in its cause, but in the fact of its rarely affecting the muscles, nerves, or viscera, and, above all, the heart. Another remarkable difference consists in its usually being mono-articular, or at least extending to but very few joints—the knee-joint being that which is much the most frequently attacked, and then the ankle, the other joints suffering much seldomer. Then, again, this form of rheumatism is often accompanied by an iritis, the seat of which is preferentially the anterior layer of the iris, and sometimes the serous membrane lining the posterior surface of the cornea, *i. e.* Desmours' membrane, either wholly or in part.

In the absence of pathological examination, it is difficult to say in what the lesions of gonorrhœal rheumatism differ from those of ordinary rheumatism; but there can be little doubt that they are not identical. At all events, it is certain that the inflammation becomes much more specially and more strongly fixed in the synovial membrane in this form of rheumatism than in the other, and hence the marked tendency to hydrarthritis which has struck all observers; and when it does not affect the joints, it exhibits a preference for the serous membranes, the sheaths of tendons, accidental bursæ, and Desmours' membrane. Clinically, gonorrhœal rheumatism is distinguished by the less acuteness of the inflammatory symptoms, whether general or local, and by a less tendency to suppuration; but, on the other hand, there is a greater tendency to anchylosis, especially in the small joints, and, in predisposed subjects, to white swelling. The disease, again, is excessively rare in women, if it is observed in them at all.

Gonorrhœal rheumatism seems to depend upon its special causes; for the predisposing and determining causes of common rheumatism have seemed to be without influence in the great majority of cases. The abundance of the discharge appears to be the most general condition upon which its production depends. Prior to the rheumatism the discharge has usually been acute, and sometimes very acute; or having become chronic, has revived again. The duration of the discharge does not seem to exert the same influence. When the rheumatism has become developed, it exerts a revulsive effect upon the discharge, this usually sensibly diminishing, although in a third of the cases it remains stationary. M. Rollet has seen it become more abundant only twice, and suppressed but once. The doctrine of metastasis has no foundation; and in treating the disease we must not seek to reproduce the discharge, as this doctrine would indicate; but, on the contrary, endeavor to arrest it as rapidly as possible, inasmuch as, owing to the dependence of the rheumatism upon the urethritis, the slightest exacerbation of the latter might be attended with aggravation of the synovitis. Therefore, copaiba and cubebs, together with injections or cauterization of the canal, should be resorted to. For

the rheumatism itself blood-letting is useful, local bleeding being, in the majority of cases, preferable. When the acute inflammation has been subdued, or if this never existed, and when articular effusion is the predominant feature, the flying blister is a most effectual means. Emetics and purgatives are valuable remedies, as are also vapor baths, especially towards the end of the malady.—*Bulletin de Thérap.*, tome lv., p. 130.—*Med. Times and Gazette.*

On the Treatment of Chronic, Organic Diseases of the Heart. By Professor Lebert.

The treatment of chronic organic diseases of the heart offers one of the most difficult tasks to the practicing physician; it is nevertheless certain that a proper and thorough treatment of these diseases may do a great deal towards alleviating the condition of the patients, and towards prolonging their lives. Prof. Lebert advises especially, great care with blood-letting, purgatives, and all debilitating measures in the treatment of organic diseases of the heart. In valvular disease he employs venesection but very rarely. If in the course of the disease an acute inflammation, in the form of pericarditis or endocarditis, occurs, it is often useful to extract blood to the amount of six ounces by means of cups or leeches; if, after this, an energetic treatment is still necessary, such advantage will be obtained from the application of a large blister, and the endermatic use of half a grain of morphia daily. The author's observations on the use of digitalis we may omit, as generally known. Most allied to digitalis, in regard to its therapeutic effect, is aconite. Although it acts less heroically and more slowly than digitalis, and does not decidedly diminish the frequency of the pulse, aconite is nevertheless a remedy which is capable of lessening considerably the dyspnœa, palpitation, and the various subjective symptoms of the patient, even the tumultuous excitement of the heart. A very important point to be considered in the treatment of advanced diseases of the heart, is the general cachexia and debility of the patient, gradually developed. Lebert has examined for several years the muscular structure of diseased hearts, in order to see how far the gradual decrease of the functional capacity of the same depends upon changes in the muscular fibre itself. From these investigations it results that very frequently a small degree of fatty degeneration of the primitive cylinders of the muscle of the heart exists, even in cases where the color and consistency of it does not indicate the fact. The gradual increase of general debility and of the local weakness of the heart, the progress of anæmia and hydræmia, lead to the question, what effect tonics, especially iron, would have in organic disease of the heart.

The better the patients are nourished (with avoidance of strongly stimulating food) the longer they resist the evil influence of the disease; the patient should, therefore, not be restricted to a vegetable diet, but a moderate amount of animal food should be allowed with it. Of

beverages, tea, coffee, alcoholic liquors, and wine in large quantities ought to be avoided, whereas infusion of cocoa, or decoction of roasted acorns, are very appropriate, particularly for breakfast. Light beer, or small quantities of old wine mixed with water, may be allowed at the table. Besides an analystic diet, the use of iron is indicated, particularly in the later anæmic and cachectic period of the disease. Lebert recommends especially iron reduced by hydrogen, (gr. ij. at each meal,) or twenty to twenty-five drops of the tinctura ferri pomati, if necessary, in connection with equal parts of tincture of aconite. The tartrate of iron and potassa (three to five grains three times daily) is a very useful preparation; and as the effect of iron is perceptible only then, when its use is persisted in for a long time, it is necessary, occasionally, to make a change in the preparation employed. The author has not derived much advantage from the application of blisters, setons, and moxas.—(*Wien. Medizin. Wochenschrift*, 1858, No. 51, and *Mediz. Neuigk.*, April 2, 1859.)

On the Use of Tannin in large Doses in Albuminous Anasarca. By Dr. GARNIER.

Pure tannin, tannic or gallic acid, was at first prescribed in hæmorrhages and diarrhœa, in pretty small doses, as it was considered a poison. Later, many practitioners recommended its use in nocturnal sweats, in diabetes, and in atonic diseases. Dr. Garnier, of Paris, was induced to try tannin in the albuminous anasarca consecutive to scarlatina, a disease which so obstinately resists ordinary measures. From the observations he has lately published in the *Archives Générales de Médecine*, it results that under the influence of large doses of this agent, the general infiltration of the cellular tissue and the presence of albumen in the urine have simultaneously disappeared. Dr. Garnier gives the following conclusions at the end of his treatise:

1. Tannin, in the dose of fifteen to thirty grains through the day, cures anasarca or œdema which has been passively developed, and coexist with albuminous urine. 2. Its curative action manifests itself by copious urine, which gradually assumes its physiological characters, by perspiration, loose stools, etc. 3. These symptoms appear on the second day of the administration of the tannin. 4 Given in solution of about three to eight grains, tannin does not derange the digestive organs. 5. The action of tannin seems to be primitively directed upon the fluids of the economy, the albuminous principles of which it coagulates and plastifies; its action upon the solids seems to be consecutive, tonic, and astringent.

The facts reported by Dr. Garnier are quite interesting; it is, however, important to remark, that tannin has been given only in cases of transitory albuminuria, following congestion of the kidneys, and that albuminous or granular nephritis is not at all in the question. This distinction should be made in order to appreciate therapeutic methods properly.—*Archives Générales*, January, 1859.

On the Physiological Action of Arsenic. By Dr. H. Gouffier.

The physiological effects of arsenic have been studied by Harles more than by any other; his experiments were on men in good health, and all of them adults. To these he administered arsenious acid in doses varying from a twelfth to a third, and even a fourth of a grain.* The effects he observed were these: increased contractility of the intestine and stomach; increased peristaltic motion of the intestines; similar excitement, but less marked, of the muscles of the extremities; while there was experienced at the same time a slight sense of constriction in the throat. The pulse became more full and frequent, but sunk again, and only beat with greater force and frequency when the dose was increased. In this way can be produced in persons in health attacks of remittent fever, though certainly not such rigors as those of true fever, but only flushing heats, disappearing and returning, and are chiefly felt in the precordial region and the forehead. Such accessions terminate sometimes in partial or general sweats, and at other times merely in a moist state of the skin. This arsenical fever never acquires any regular type. It must be said, however, that it is rare for the excitation to be carried to this degree, and that it is more usual simply to see an augmentation, more or less considerable, of the heat of the body, which seems to have its source in the stomach and precordial region, whence it passes to the rest of the body, but is especially felt in the forehead and eyebrows. To produce these effects, according to Harles, a rather strong dose of arsenic is required. Among the symptoms, too, must be reckoned simple ardor in the œsophagus, extending to the stomach, but is seldom painful when the dose is not considerable. The increase of appetite is remarkable, and is almost always observed when the dose is weak; but a strong dose produces opposite effects, such as diminution, and even complete loss of appetite, nausea, and vomiting. The thirst is more excessive as the quantity of arsenic taken is greater; the alvine evacuations are more frequent and less consistent; but this seldom, if ever, becomes changed into true diarrhœa, and more rarely still into dysentery. The urine is more abundant and miction more frequent. This increased secretion of urine alternates with the cutaneous transpiration, and is the more considerable the drier the skin is observed to be. The arsenic is carried off by the urine, where it may be discovered by chemical tests; consecutively to its absorption, it acts as an excitant of the nervous system. There are then seen, in individuals submitted to its action, remarkable watchfulness, intellectual excitation, with great muscular activity and aptitude for walking; the respiration becomes more facile, and is accompanied with a certain feeling of comfort.

Arsenic has been classed, not without reason, among the alteratives. In the long run it occasions dissolution of the blood, and arsenical cachexy, but it is still a restorative, nevertheless, by the activity and excitement which it gives to the digestive functions. The effects of arsenic on persons in good health, when given in small doses and long

* As a third is greater than a fourth, the translator suspects one-third, as it occurs in the original, must be a misprint for one-sixth.

continued, were but little known till Dr. Tschudi brought to light a singular practice followed in several Austrian and German provinces. The cures which he relates are extremely interesting, and open up a new field for observation; not only have they caused a sensation throughout the scientific press, but the political journals have taken up the facts in order to present them to the curiosity of their readers. Nevertheless, the reception they met with from the public was one rather of doubt than of good-will. One of the most formidable of the mineral poisons becomes a hygienic aliment, and its daily use produces the most beneficial results to the general health! What absurdity! Reason revolts at the idea, and throws nothing but doubt over the authenticity of the facts related.

According to Dr. Kœpl, the subject of arsenic eating cannot be given too much in detail; for a knowledge of the facts are no less necessary to the physician in the practice of his profession than to the medico-legal inquirer. In a case of poisoning tried by the jury of Cili, the accused was acquitted on the simple deposition of a witness, whose testimony led to the belief that the deceased was an arsenic-eater The importance of these details cannot be less in a hygienic view, when it is considered that in certain countries arsenic is used for fattening animals for slaughter, and among jockeys also the custom has become common of giving it to broken-winded horses when it is desired to bring them into good condition for sale.

The peasants in certain parts of Styria, Hungary, and the Tyrol, have this singular custom of eating arsenic, which they take with the twofold view of preserving first and then increasing the freshness of their complexions. The motives which lead them to contract this dangerous habit are usually *coquetterie* and a desire to please; hence it prevails chiefly amongst women and young people: we say *dangerous habit*, for once contracted it cannot easily be laid aside without serious inconveniences, so that these poison-eaters find themselves thus condemned to eat poison for the rest of their lives. Seldom, if ever, do they have recourse to this remedy in vain, for seldom indeed do the results disappoint their expectation. Under its influence their skin acquires, after some weeks, a softness, and their complexion a degree of freshness quite remarkable, nor can the florid aspect of their general health be exceeded. Tschudi had no want of examples, and those which he has related deserve to be noticed. A dairymaid, of the parish of H——, pale and emaciated, thought she might, by giving greater *éclat* to her charms, render Cupid propitious, had recourse, with that view, to the usual means, and after some months, during which she had taken arsenic several times a week, she became stout and blooming, but, increasing imprudently the dose, she poisoned herself, and became thus the victim of her own imprudence and *coquetterie*. It must not be supposed, however, that such serious consequences are common, for arsenic-eaters, for the most part, by beginning with feeble doses, which they progressively but cautiously increase, learn to apportion the agent to the tolerance of their stomachs; and when their system has once become habituated to arsenic, they can take it in considerable quantities without experiencing unpleasant

effects, and without future ill-consequences. "The peasant R——, a sexagenarian, in the enjoyment of excellent health, actually takes at each dose," says Dr. Tschudi, "a portion of arsenic in weight about four grains. This practice, which he inherited from his father, and which, he says, he shall bequeath to his son, he began forty years ago, and you cannot detect in him now the slightest trace of arsenical cachexy."

It is no less remarkable that the arsenic-eaters cannot discontinue their custom without experiencing symptoms similar to those produced by chronic arsenical poisoning—anxiety for their persons, indifference about every one around them, derangement of the digestive functions, accompanied especially with anorexia, a sense of fullness in the stomach, slimy vomiting with ptyalism in the morning, pyrosis, spasmodic constriction of the pharynx, griping, constipation, and, above all, difficult respiration. For all these symptoms the only efficacious treatment is a return to the use of arsenic. An arsenic-eater, sixty-three years of age, from the time he was twenty-nine, made use of arsenic in large doses, but without experiencing anything beyond some alteration and roughness in the voice. In the course of thirty-five years he had taken from twenty to twenty-two ounces. The death of one of his friends, which he erroneously attributed to poisoning, for he was an arsenic-eater like himself, opened his eyes to so strange an abuse; but he had scarcely renounced the use of arsenic ere he began to suffer from violent gastrodynia, while, singular as it may seem, with exception of an attack of pneumonia, he enjoyed the most perfect health during the whole period he took arsenic.

The inhabitants of the districts we have named have recourse to arsenical preperations also with another view—to facilitate respiration during their up-hill journeys. Their object, they say, is to become more *volatile;* and for that purpose they take a bit of arsenious acid, which they leave to dissolve in the mouth; and the German carters, before commencing a difficult ascent, mix it with their horses' fodder.

The period when arsenic began to be used in those countries as a hygienic means is quite unknown, but is supposed to be very remote. A knowledge of the fact has, till these times, been retarded by the pertinacity with which the arsenic-eaters deny the habit to which they have been addicted, retaining their secret till extorted by the fatal sufferings occasioned by their imprudent practice.

There are various experiments in confirmation of the facts related by Dr. Tschudi. Masselot and Trousseau have remarked that in themselves arsenic produced unwonted vigor in the lower extremities, and great aptitude for walking. We may add that we have ourselves had occasion to observe similar results. From the beginning of November, 1856, to the following June, we experimented with four grammes of arseniate of soda, a single dose taken at a time, at intervals of two days, beginning with five milligrammes, and increasing the dose gradually to four centigrammes. During the whole of that period nothing of intolerance was experienced, but the appetite was excessive, and our *embonpoint* became very apparent, especially to per-

sons who were ignorant of our experiment, and who did not fail to ask us the reason of a change in our person so unwonted. The discontinuance of the arsenic was quickly followed by considerable emaciation, but by no other symptom. Lastly, five centigrammes of arsenious acid, taken recently at supper, occasioned us nothing more than nausea and headache the following morning, with slight diarrhœa, all which entirely disappeared in the course of the day.—*Medical Circular.*

On Laryngoscopy. By Prof. CZERMAK.

Under the head of a contribution to laryngoscopy, Prof. Czermak relates a case of chronic loss of voice, of supposed nervous origin, chiefly because it was often suddenly aggravated by emotional causes; in which, by means of a small laryngeal mirror and an ordinary study-lamp, he was enabled distinctly to make out a small dark-colored tumor, of the size of a small green pea, resting, by a tolerably broad base, on the right true vocal chord. The growth had a somewhat uneven surface, and seemed of soft consistence, inasmuch as each vibration of the chord caused its whole substance to tremble, and when closed on by the glottis, it seemed somewhat elastic; the sudden exacerbations of hoarseness, from emotional causes, depended, no doubt, on the more or less erectile character of the growth. C. only saw the patient once in passing, but suggests the propriety of operative interference in such cases, and relates this case chiefly as an encouragement to others to prosecute this method of diagnosis by means of Garcia's laryngeal speculum, recalling, however, the fact that this method of diagnosis dates long previous to Garcia, and referring for proof thereof to Liston's Practical Surgery, London, 1840, p. 417.—*Wiener Wochenschrift.*—*Va. Med. Journal.*

Gunpowder a Remedy for Toothache and for Scabies. By M. LAFFONT.

All remedies are good, if they cure. M. Laffont recommends his patients to put a table-spoonful of powder into a piece of fine linen, and to apply this little bag to the painful tooth. He has employed this remedy in twenty cases. All the patients told him that it provoked, but only for a few instants, a slight pungent heat in the mouth, but that the toothache completely disappeared.

M. Laffont learned from a traveler that gunpowder was much used in the colonies against scabies. Three parts of powder, incorporated with ten parts of molasses, constitute a mixture, which is rubbed well on the whole body; the next day a bath is taken in water impregnated with soap, and the cure is finished. M. Laffont has used this friction in three cases of scabies, and has cured them radically.—*Journal de Médecine de Bordeaux*, October, 1858.

EDITORIAL AND MISCELLANEOUS.

— The discussion on the personal contagiousness of Yellow Fever still continues at the Academy. While our seaboard from New Orleans to Portland is free from this disease, the Academy, quietly ensconced in their hall at the University, pursue their deliberations upon this form of disease, which very few among its members have ever seen. All, however, are interested in the subject of Quarantine, and it is upon this point of the question which hangs the practical importance to those who are fortunately unfamiliar with the appearances of the fever.

At the first session in July, the question was resumed by Dr. Reese, who reasoned in this wise: If yellow fever be contagious, then it can be imported; and if it can be imported by sea or land, by persons or *fomites*, then it becomes the duty of our Boards of Health to prevent such an importation by the strictest Quarantine that can be possibly devised. But if yellow fever is not contagious, then it cannot be imported, and all Quarantines constructed for this purpose are unnecessary, and are outrages upon commerce and humanity.

Dr. Reese took the ground that it was not contagious, and could not be imported; yet, notwithstanding this, Quarantine he regards as necessary, for ships may be sources of infection until they are properly cleansed and ventilated.

Dr. Reese believes the great difference in opinion existing upon this subject arises from a misunderstanding of the terms employed, especially in reference to the difference between *contagion* and *infection*.

This distinction Dr. R. proposed to elucidate and define. The first, *contagion*, he regarded as applicable to those diseases which are communicable by actual contact, such as syphilis, gonorrhœa, itch, erysipelas, hospital gangrene, morbid poisons found in the dead bodies of animals, or certain acrid vegetables, Egyptian ophthalmia, or other morbid secretions of animal bodies, as from certain mucous membranes, vaccine, and small-pox. Some of these require immediate contact, others inoculation, and others again mediate contact, through the air in close proximity.

Infection is applied to those diseases which do not require actual contact, neither immediate nor mediate. They originate in an atmospheric poison, the inhalation of which may produce the disease in the well by aerial contamination. Such are typhus, ship, jail, and hospital fever, cholera, dengue, yellow fever, remittents and intermittents, puerperal fever, scarlet fever, measles, whooping-cough, mumps, influenza,

diphtherite, &c., all *infectious* in an epidemic atmosphere, but non-contagious; that is, non-communicable from the sick to the well in a healthy atmosphere.

Fomites, Dr. Reese believes, can have no possible application to yellow fever or any infectious disease, but may be the means of propagating contagious diseases, and it is for the purpose of preventing the spread of those diseases that Quarantines are of service. They may serve, too, beneficially in furnishing means for disinfecting infected vessels, not from *contagion*, but from infected air.

Dr. Reese believes in the local or domestic origin of yellow fever, and Quarantines for this are ineffectual; for where the causes of the fever exist, such as the necessary contingencies of climate and soil, heat and moisture, the existence of a miasmatic poison to a certain extent, then the fever will appear in spite of the best efforts of sanitary science to oppose it.

If yellow fever is contagious, he insists that we are daily exposed to it; and if fomites can carry it, then there is no safety for us at any hour of the day, for we are momentarily subjected to being overwhelmed by the importation of this disease by sea, and the landing of cargoes of goods carries the seed of disease to our homes at each arrival from abroad. Nothing of the kind occurring, he is forced to believe in the non-contagiousness of yellow fever, and in the innocuousness of fomites as a means of its propagation.

— The Academy of Medicine, of Paris, at its sitting of the 31st May, witnessed a scene which the Editor of the *Revue de Thérapeutique* calls an *event*. It was a partial renunciation on the part of M. Ricord of one of the articles of his medical faith, for which he has long contended against the greatest odds. M. Ricord has always been a firm supporter of the views of Hunter, in relation to the non-contagiousness of secondary syphilis, but the event of the Academy referred to shows that his views in this respect have undergone a change.

In October last, a letter from the Minister of Public Works, &c., submitted to the Academy the following questions:

1. Are the symptoms of secondary syphilis contagious?

2. Regarded as contagious, are the effects in infants at the breast different from those observable in the adult?

These questions were referred to a committee, composed of MM. Gibert, Velpeau, Ricord, Devergie, and Depaul, who reported through M. Gibert, at the session of May 31, that:

1. There are secondary or constitutional symptoms of syphilis mani-

festly contagious. At the head of these it is necessary to place the mucous papule or flat tubercule.

2. This proposition applies to the nurse and the infant at the breast as well as to other subjects, and there is no reason to suppose that in infants at the breast the results of these symptoms have properties different from those observed in the adult.

Answered so categorically, and inclosing in its terms so complete a denial of the Hunterian doctrine of non-contagion, it was necessary for the great expounder of Hunter to qualify his renunciation, which he did in a long address from the tribune of the Academy, closing as follows:

Therefore, I conclude that the report which should be sent to the Minister, in reply to his demand, should be cautiously expressed, admitting, if you will, the possibility of the contagion of the secondary symptoms, but without specifying anything more at present. *Fiat Lux.*

The conclusions of the report were, however, adopted by the Academy.

— *The Sale of Poisons.*—One of the objects of legislation is the protection of the people, not only from dangers that may arise through attacks of lawlessness and violence upon them, but from accidents to which their own ignorance may subject them, or which a rash and thoughtless course of conduct may bring about. Hence, while laws are passed forbidding the carrying of concealed weapons, and guaranteeing protection to life and limb, it is felt that some measures should be adopted to remove the means of suicide, and the substances which may be pernicious to life from the hands of the ignorant and thoughtless. Still very little is done, in our land, that shall prevent the free access of the unprofessional to the deadliest poisons. These are procurable without being subjected to annoying questions, as to the uses for which they are intended. Persons, altogether unknown to the dispensing apothecary, purchase, hourly, quantities of deadly material that may be the means of death to themselves or their enemies. Children, and those who are perfectly irresponsible, can procure opium and its preparations, purchase arsenic—for the destruction of rats—and obtain the powerful preparations of strychnia and cyanogen. This is an evil which all must admit. The question is, how can it be checked? and this question is a difficult one to answer in a country where liberty is interpreted, by the demagogue, to mean freedom to do as each one pleases. The cry is raised, when prohibitory laws are attempted, that

an effort is made to infringe the liberty of the subject, and in this way the best efforts of good men are crushed.

In England a step was taken in the right direction when the "Act to regulate the Sale of Arsenic" was passed June 5, 1851. Each person selling the article was obliged to keep a record of its sale, the name of the purchaser, and that of the witness in whose presence it was sold. The purchaser was to be known to the vender, or to be certified to by those who were known. Furthermore, no sale of arsenic was to be made in less quantity than 10 pounds, unless it was mixed with soot or indigo in the proportion of one ounce of soot or half an ounce of indigo to one pound of arsenic, in order that the color of the article might be of avail in arousing suspicion with those to whom it might be administered with homicidal intent.

Such an act, although not meeting all the requirements of the case, yet was immeasurably in advance of anything of the kind promulgated by proper authority in this country. We need this, and more, because our laws do not demand any preliminary training from those who are licensed to vend drugs. Any illiterate person, with us, can take up the business of the pharmaceutist, and, through his ignorance, endanger the lives of a whole district in his putting up of prescriptions. A pharmaceutical education is not demanded of him who *professes* a knowledge of the intricate business of pharmacy. He may be as ignorant as the veriest boor, and yet is authorized by law to do exactly that which the most accomplished pharmaceutist can do.

There must be some legal regulations connected with the practice of pharmacy, and the medical profession should leave no stone unturned that may lie in the way of the passage of such regulations. Duty to themselves and society requires their untiring efforts in this direction. But even where such knowledge exists, there must be prohibitory laws as regards the indiscriminate sale of deadly poisons. We shall return to this subject in our next number. L. H. S.

— *The Black Doctor in Paris and Cancer.*—What is cancer? By what can it be recognized? Why is it so called? Since the black doctor Vriès has created such undeserved excitement, questions like the above have found place in circles and saloons, where, heretofore, even the name of this or that disease, unless it properly belonged to the class of nervous affections, was not allowed to be introduced. But now even the woman of fashion attacks her physician for information concerning the horrible visitation, and the pretended physician who is a match for it; this information must be given, and answer accommo-

dated to so delicate an audience. He gives it, and nearly in the following words:

Cancer is a morbid development of peculiar organic tissues; a development whose product must be ever looked upon as a local symptom of a frightful disease affecting the whole system, which mostly increases, almost never retreating, attacks the other tissues within its reach, carries its victim under horrible agony to the grave—which, down to the present time, has bid defiance to all medicinal aid, and has only in exceptional cases been vanquished by the curative efforts of nature. So little is Medicine able to do towards the cure of cancer, so little can she say concerning its causes and origin, and all the things to be avoided, since it may be excited by a blow, a thrust, a puncture, &c., that all this can be considered as empty and nothing. Thus far, the explanations of the physician are as to his knowledge, or rather his ignorance, of cancer. The questioners, however, now take up the second subject, and wish to know what connection there is between it and the black doctor.

With the black doctor? Well, now, he is one of those men, impudent and avaricious, who venture upon territory perfectly strange to themselves and everybody else, understanding how to impose on ignorance, and to profit by the accident that has given him access to one of the first surgeons of the age, and to say to him—the world-renowned Velpeau—with wonderful audacity: I am in possession of a secret which enables me to cure cancer; will you trust your patients to me? And what does Mon. Velpeau? Nothing more nor less than duty indicated to any honest physician—he places a dozen of these unfortunate persons, on whom science had exhausted its efforts, under the orders of the strange charlatan. And what is the result?

The result is told in several satisfactory pamphlets. We have read that of Fauvel, who is employed as an *interne* at Velpeau's Clinic. It bears the title—*La vraie vérité sur Mr. Vriès, dit le Docteur noire*, beginning with a biography of the exotic physician, in which it is especially noticed, that he is not a negro, but rather a mulatto with a yellow color, black, curly hair, dark eyes, and a beautiful, full beard. He is probably 56 years of age, tall, with very regular features, and becomes furious with rage whenever any one is so imprudent as to call him a negro. "I a negro!" he cries out; "look here!" and stripping up his coat and shirt-sleeves, shows an arm of really dazzling whiteness.

The son of the island of Surinam has found in Dr. Fauvel a very severe judge and unmerciful biographer, who enrolls him among the

quacks (*Marktschreier*) who vend, at cheap rates, *theriac* and wonderful draughts in the public squares and cross-roads. *Vriès*—so he is called in the pamphlet—is an impostor, who preys in a heartless way on the sufferings of his fellow-men, and thus, in his operations, resembles the sanguinary spider that ensnares its victims, sucking their life-blood until death is their fate.

Among the favorite expressions of the black doctor are the following: "I do not cure by gangrene! I shall overthrow old medicine! I establish new principles!" Fauvel assures us, that it may be more easy for him to establish a new system of medicine, as he is fundamentally ignorant of the old. Rage prevents the adventurer from contradicting. His biography relates that, when the yellow fever first appeared in Brazil, and Rio Janeiro was full of sick, a want of physicians was experienced. Vriès, although possessing neither medical knowledge nor a diploma, immediately asked permission to go on board the ships, and to attempt the treatment of those affected there. His request was granted; whereupon, he treated the sick sailors in true negro style, partly with lemon-juice, and partly with browned coffee, and succeeded in obtaining enormous fees by publishing the most incredible pretensions, in the midst of the general distress. With a shamelessness that almost could be called *naïve*, he published in the public journals, among others, the following conditions of treatment: 3,000 francs at the commencement of the treatment, 3,000 francs during its progress, and a like amount at its termination. Although this publication called forth public indignation, yet he pocketed within a few days 90,000 francs in fees.

From Brazil, he removed the scene of his charlatan profits to London, where, however, he played a failing game. Similar fortune accompanied him at the Hôpital St. Louis, in Paris, where, during a whole year, no cure was made. Lately he has undertaken to experiment on the cancer-patients in Velpeau's wards, but he has not been able to furnish the slightest improvement in any patient.

Prof. Velpeau has, however, at a late session of the Paris Academy of Medicine, pronounced sentence on this audacious mountebank. It appears from the report read by V., that Fauvel had reported correctly concerning the adventurer, and that none of the cancer-patients had experienced any improvement. In every one, the course of the disease had not changed an iota; all were worse; some were dying, and one was already dead. The tinctures and salves which were to be endowed with specific virtues, are, for the most part, of an innocent character, prepared from well-known West Indian plants.

The Academy resolved to lay Velpeau's report officially before the proper authorities. The question of Velpeau, whether this man should be denied further admission to his wards, was directly answered by Daverne, the general director of public charity, who was present—that, every proper guarantee having been removed, from that time on, an end should be put to the injurious practice of the foreign adventurer—a statement which was received with thunders of applause. Such is the history of the black doctor on the Seine!—(*Wiener Med. Wochenschrift*, April, 1859. L. H. S.

—*Female Medical College in London.*—A correspondent of the *Vienna Weekly Medical Times* thus writes, in the number for April 23 of this year, concerning female doctors in London: "An invasion of young American life, full of freedom and activity, upon the old, rotten, and mouldering civilization of Europe, is the dream of all the socialists, communists, and other honorable practical men, who have come into unpleasant conflict with European constitutions, and turning their covered heads from the mother-land and its future, greet on the other side of the ocean the rising sun of human destiny. Even England, practical, calculating England, that will never barter a present penny for a future shilling, has suffered itself to be seized by such horrible pictures, and takes the field with all the force and earnestness of law against the members of the Phœnix band, who would free Ireland with American soldiers, and besiege Old England. Less threatening, indeed, and eager for battle, but, on account of its more insinuating loveliness, so much the more certain of victory is an American invasion, which has already indeed been made, and has unfolded its banner in the heart of England—the invasion of medical Bloomerism, of Crinoline-managing Therapeia, that, at present, in the person of its most distinguished representative, Dr. Elizabeth Blackwell, ascends above the doctor's horizon as a threatening cloud. This generous young lady will be recollected as having studied in Paris and London, having graduated in one of the countless colleges in America, afterwards practiced in New York, and founded (?) a Female College for the study of medicine. The impulse given by her was so transporting that already over two hundred Yankee daughters, to whom malevolent fate appears to have denied the palm of domestic life, have undertaken their studies at this university, and now, armed with lancet and uterine syringe, form a respectable body for the conquest of a future share in medical practice with the female sex. Not content with this brilliant success, Miss Blackwell has turned to Europe, to enable it to enjoy a part in the benefits arising from her labors. Eight days ago, Miss

Blackwell gave her first lecture, and described, from a cathedrá decorated with flowers, with enthusiasm, how it was the peculiar calling of woman to mitigate and heal disease, and how man, with brutal injustice, had arrogated this calling to himself and held it as a monopoly. This disgraceful banishment of woman from the most special department of her activity is no more to be endured, and so she advised the numerous sisters assembled to take what had been withheld from them, and by the power of facts to convince the world how much it would be in the wrong, if it disputed any longer the right of the *genus femininus* destined by nature for the curative art. Enthusiastic cheers followed this address; and immediately a wealthy lady, trembling with eager aspirations, entering as a sophomore (Brandfuchs) in the faculty to be founded, convened a meeting at her villa in St. John's Wood.

Here was discussed (whether energetically or not, any one may decide for himself who has ever had the honor to be present at a large assemblage of ladies) whether they should proceed with the erection of a Hospital and Clinic. The moderate ones proposed that they should first found an institution for the education of nurses, for which purpose Lady Byron, the widow of the poet, would place a house at their disposal. Loud groans, terrible expressions of insulted honor, were opposed to this resolution: "We are free English women, no Dutch deaconesses; no French Gray Sisters; we will not serve and help like Miss Nightingale; we will govern and manage; *we will go the whole hog.*" And then the memorable resolution was proposed, to found an institution for the instruction of female physicians, with a hospital and dispensary; and a rich fellow-soldier immediately proffered £5,000 sterling for its foundation, with £300 yearly for a series of years. (It must be understood that the donor, like all those concerned in the meeting, had *fully* attained the age of majority, so that her ability to dispose of her property cannot be doubted in a legal point of view.) We can thus hope, in a short time, to see "The Medical College for Young Ladies" developing itself in full activity, conducted by Miss Blackwell, who has been reserved for the Deaness' cap, and her sister, also a graduate, who will officiate as *Vice-Deaness.* Whether for the remaining chairs male instruction will be provisionally employed, or America will send, from the number of her superfluous Professoresses, some to assist, remains at present a matter of doubt. Curiosity inquires whether the new Medical Act, which has just come into life, will include in its category these doctoresses. The law speaks only of *medical gentlemen*, and it recognizes only those who are registered as free from

military and jury service. These latter immunities will surely rejoice the doctoresses of the future, as they will be established along with their legal qualifications for practice, which an act of Parliament shall determine, and, under the auspices of a Queen, it is to be hoped that no ungallantry will be visited on the female sex. L. H. S.

— The Trustees of the Fiske Fund, at the annual meeting of the Rhode Island Medical Society, held in Providence June 1st, 1859, announced the premium of two hundred dollars offered by them in 1858, for the best dissertation on the following subject:

"*The effect of the use of alcoholic liquors in tubercular disease, or in constitutions predisposed to such disease,*" had been awarded to the author of the dissertation bearing the motto:

"*Occasio præceps experientia fallax judicium difficile.*"

And upon breaking the seal of the accompanying packet, they learned that the successful competitor was John Bell, M.D., of New York.

They proposed the following subjects for 1860:

1st. Diphtheria; its nature and treatment, with an account of the history of its prevalence in different countries.

2d. The morbid effects of retention in the blood of the elements of the urinary secretion.

For the best dissertation on either of these subjects the Trustees will pay the sum of one hundred dollars.

— We continue our extracts from *Dr. Mercer Adam's Medical Notes from the Continent*, published in the *Edinburgh Medical Journal*, by giving the remainder of the article on the University of Würzburg, which includes a sketch of the celebrated accoucheur, Scanzoni.

Scanzoni next demands our attention. He it was who attended the Empress of all the Russias at her last accouchement, and was presented with the munificent fee of about £5,000, perhaps the largest *honorarium* which any continental physician ever received. The *prestige* with which his favorable reception at the Russian Court invested him; his undoubted skill, and widely-spread fame, as an authority in female diseases, have rendered him the most celebrated and popular of continental accoucheurs. Every summer crowds of the French, German, and Russian nobility and aristocracy flock to Würzburg to consult him; and the principal hotels there during the season are like so many fashionable hospitals, filled with his lady patients. I remember that I considered myself very fortunate in getting possession of the only vacant apartments in the *Kron-Prinz*, just as they were vacated by a *Gräfin*, or German Countess, who had been under Scanzoni's care. Nor is he only busily employed during the summer months; for when the *Kurzeit*, or season, is over at the Spas, when the pleasure

seekers and invalids have left Baden-Baden, and when the gambling-rooms of Wiesbaden and Hombourg are deserted alike by the fools and blacklegs who had thronged them in summer, the little spas of Kissengen and Brückenau, in Bavaria, preserve their vitality, being constantly frequented by visitors, who desire to be in proximity to the great obstetric physician of Würzburg. Scanzoni has earned his great reputation while still comparatively young. He is a man of forty, slightly above the average height, and with a slim, well-made figure. His complexion is fresh, and his long, light-brown hair, carefully brushed back from a large, well-developed brow, falls in negligent masses behind. He has a cheerful, open countenance, and a merry eye; his face generally wears a smile, and a touch of quiet humor lurks about the angles of his mouth. His manners are peculiarly affable, and all who have enjoyed the pleasure of his society must retain, as I do, the most delightful recollections of his friendly courtesy. Scanzoni's unprecedented success has not lost him to science. We all know how often this is the result of a man gaining the ear of the great public, and becoming what is called a "fashionable physician;" how often he ceases to investigate disease, or to contribute to medical literature as in days gone by; and how often the clink of golden guineas dulls his ear to the calls of science. There are among us, no doubt, many most honorable exceptions—men who scorn all fashionable quackery, and who, in the midst of an extensive and harassing practice, still contrive to cultivate science and medical literature with quite as much success as their less busily employed brethren. Hofrath Scanzoni is a man of this stamp, and he fully deserves his fame; for he continues to be as active and enthusiastic in the investigation of all that relates to obstetrics as he was in former days, when he was comparatively unknown.

The works of Scanzoni, like those of his colleague, Kölliker, are now so familiar to all scientific obstetricians—although, singular to say, no English translation of them has yet appeared—that any special reference to their contents is quite unnecessary. His *Manual of Midwifery*, now in its third edition, is a most complete treatise on the subject; and his work on *Female Diseases* is eminently practical in all its details. He has recently commenced a periodical specially devoted to obstetrical science, which promises to be a very valuable addition to this department of professional literature. It is entitled *Contributions to Midwifery and Gynæcology*, and contains, not only contributions from his own pen, but also from many other writers of note. In the third part, recently published, Scanzoni relates a most interesting case of death induced by passing carbonic acid gas into the uterine cavity. The reader is doubtless aware that, of late, carbonic acid has been extensively used, not only as a local anæsthetic of undoubted efficacy, but also as a means of exciting the muscular activity of the uterus, in the induction of premature labor. The unfortunate patient was a woman aged thirty, who had a large, painful, fleshy tumor, of bluish-red color, and as large as the fist, attached to the vulva; and who had also a disease of the cervix, and, what

afterwards proved to be, a large dropsical cyst of the uterus. Before commencing an operation for her relief, a stream of carbonic acid, as an anæsthetic, was passed into the vaginal canal; but hardly had two or three cubic inches of the gas entered the cervix, when the patient screamed out, "The air is entering my abdomen, my head, and my neck!" Alarming symptoms immediately ensued; great rigidity of the whole body; labored respiration; small pulse, and coldness of the extremities. In spite of all the remedies applied, the patient sank, one and three quarter hours after the introduction of the gas into the vagina. Scanzoni considers that the death may be accounted for in two ways: *firstly*, by supposing that the gas entered one of the large uterine vessels and occasioned a fatal result, just as sometimes happens from the entrance of air into the veins in surgical operations; or *secondly*, by the hypothesis of a veritable intoxication, produced by the gas. He admits that objections may be raised against both of these views, but he considers that the first theory is more likely to be correct than the second. The first hypothesis seems opposed by the fact that, on the careful examination of the uterus, not a single injured or gaping vessel could be found, which could admit the gas into the circulation; and, moreover, it is worthy of remark, that death did not occur for an hour and three quarters after the introduction of the gas, whereas, on the entrance of air into the veins, the fatal result usually takes place very quickly—sometimes in a few minutes. Against the intoxication theory may be adduced the facts, that proportionably very large doses of carbonic acid may be brought into contact with the blood, through the medium of the respiratory and digestive passages, without any poisonous effects being produced; and further, that, in numerous instances, this gas has been passed for a long time into the vagina, without giving rise to any dangerous symptoms whatever.

As a clinical instructor, Scanzoni surpasses most obstetrical teachers in rendering his pupils adepts in correct diagnosis. I remember hearing him deliver a clinical lecture on the differential diagnosis of fibroid pelvic tumors, from pregnancy, fibrous tumors and polypi of the uterus, which was quite a master-piece for its lucidity and simplicity. He has large clinical wards for patients with female diseases allotted to his care in the Julius-Spital; and he gives instruction in practical midwifery in the *Entbindungs-Anstalt*, or Lying-in Hospital, a handsome new building, near the Julius-Spital. This institution, which is principally supported by allowances from the Government exchequer, and also, in part, by the fees of the students and midwives who attend it, is well worthy of the medical school of Würzburg. It is intended for the reception and care of poor women at their confinements; for the shelter and private delivery of pregnant women who wish their accouchements to be kept secret; and for affording a good school for the instruction of medical students and midwives in practical obstetricy. The very poor are, of course, received gratuitously, but nearly all the patients contribute something for their maintenance and treatment. The rates charged vary according to the accommodation afforded, etc.; and the patients are divided in three classes: the first pay 2s. 6d.,

the second 1s. 2d., and the third as low as 3d. a day. Patients of the latter class, however, in consideration of the low rate of board charged, are expected, if strong and well, to render assistance in the general household work of the establishment. The maximum length of residence allowed in the *Entbindungs-Anstalt* is fixed at six weeks, but exceptions are made in favor of poor women who are in ill health, and demand medical attention during pregnancy, and also in the case of rich patients who desire a refuge within its walls for a longer period. On the reception of a patient into the hospital, the following particulars are recorded in a book: Name, surname, age, and place of birth; date of admission; number of pregnancy—its beginning, its present stage; time of expected confinement; any personal peculiarities, etc., worthy of notice; and columns are further provided for the registration of the date of the discharge, and whether or not the mother was accompanied by her child. The institution contains about 130 beds, and about 50 are, on an average, constantly occupied. The number of births averages about 350 annually. The whole of the interior is furnished with a view to elegance and comfort; and the system of ventilation throughout the building is quite unexceptionable. Around the hospital are neatly-laid-out gardens, which serve as airing-grounds for the patients. Each of the first-class patients is allotted a neat little room for herself, which is elegantly fitted up with furniture made of walnut wood, consisting of a bed, table, sofa, chest of drawers, and several chairs—with occasionally an extra bed for the attendant nurse. The second-class patients have also separate apartments, similarly fitted up, but with furniture of a plainer description. In each room a cosy little child's cot stands beside the bed of the mother. Patients of the third class sleep in dormitories, which are well lighted, and exceedingly clean and comfortable. In one part of the establishment there is a suite of about six or eight apartments, which is called the *Geheime-Abtheilung*, or secret department. This feature distinguishes many of the German Lying-in Hospitals—as we shall afterwards have occasion to mention when speaking of the Vienna hospitals—and it enables the victims of seduction and illicit love to conceal their shame from the open gaze of the world. Here, the young lady, who has "loved, not wisely, but too well," may retire from society before her disgrace becomes apparent—her friends believing meanwhile in some pleasing fiction, that she has gone on a tour to visit England, or to enjoy the gaieties of Paris. Here she enters, seen by no human eye, save that of the hospital attendants, who are all trustworthy, and sworn to implicit secrecy; here she lives till her confinement is past—never called by her name, but merely designated by a number; and when that event is over she again passes out into the world, and perhaps talks of the celebrities she has seen in Pall Mall or Rotten Row, or of the fascinations and beauties of the Champs-Elysées. The object, in providing such facilities for the concealment of illegitimate births, has doubtless been the prevention of criminal abortion (a crime as heinous as murder in the eyes of the Roman Catholic Church) and infanticide; but the effect of these provisions on the public morals cannot be very good.

For the reception of puerperal women there are four excellent wards, with water-closets attached; and there are also sick-rooms for patients who have abnormal deviations from the ordinary process of recovery after labor. Each sick-chamber has a little kitchen annexed to it, for preparing cataplasms, cooking food, etc. There are lavatories in all the passages; and I was shown one or two large and cheerful work-rooms, where great numbers of the poorer patients were all busily employed—as is the custom with the German peasantry—spinning away with their "rock and wee pickle tow."

In the upper part of the *Anstalt* is a large hall or ampitheatre, called the *Entbindungs-Saal*, or accouchement-room, wherein the patients of the third class are delivered by the students, under the direction of the professor or the assistant physician. Seats are arranged, in a circular form, round the room, for the accommodation of the students; and in the centre of the space which they inclose stands an obstetrical bed, which is something quite unique It resembles in general appearance the ordinary German beds, which are simply long and not very broad wooden boxes, raised on four legs, and having no posts or curtain-hangings of any kind. This bed, however, rests on a strong, central, circular pivot, which enables it to be turned round easily in every direction. It also admits of being separated, transversely through its centre, into two halves; and this is done when turning, or any instrumental interference, is necessary. The lower half being then withdrawn, and the patient placed in the lithotomy position, the operator enjoys great freedom of action in every direction. The bed is also furnished with two movable wooden handles, which can be shifted higher or lower for the convenience of the patient, and by grasping these she can have a firm support during the labor-pains. Whenever a patient is seized with labor-pains, the clinical students are specially summoned to attend at the *Entbindungs-Saal* and witness her delivery. One of their number is selected to conduct the case, under the superintendence of the professor or his assistants. It cannot be denied that there are many advantages connected with this mode of teaching clinical midwifery, but the publicity and exposure which it entails are attendant evils, that render it repugnant to British notions of propriety, and preclude the possibility of its importation into this country.

Professor Scanzoni kindly accompanied me through the whole of the excellent museum attached to this hospital, and showed me his collection of valuable obstetric instruments. His new cephalotribe struck me as a very beautifully devised instrument, infinitely simpler in its construction, and easier in its working, than the cephalotribes of other physicians. In Germany, this instrument has completely superseded the perforator and crotchet in craniotomy cases; and I feel quite convinced, from what I have seen of its use, that if British accoucheurs would only give it a fair trial, that it would soon come into general employment in this country also. Scanzoni's cephalotribe is not more difficult of application than the ordinary forceps; it is easily worked, and is devoid of all the dangers to the mother attendant on the em-

ployment of the old-fashioned craniotomy instruments. The museum contains a large collection of interesting anatomical preparations. Among them is a curious specimen of a uterus, with a rudimentary appendix on its left side, in which an ovum—which had descended from the right ovary, and had traveled thither through the fundus of the large uterine cavity—was developed into a fœtus of four or five months old. The mother died at this stage of her extra-uterine pregnancy, although she had before been thrice safely delivered of children, and had once aborted with twins. At the *post-mortem* examination, the ruptured sac of the fœtal membranes was found in the appendix I have referred to, which constituted a true horn of the uterus. This horn or appendix was attached externally to the left fallopian tube and ovary, and on its internal or right side it was united to the fundus of the uterus by a band of connective tissue. A narrow passage perforated this connective tissue, which admitted of the passage of a probe, and constituted a true communication between the fundus and the appendix. No cicatrix was found in the left ovary; but in the ovarium of the right side there was a distinct corpus luteum, about six lines in length, which indicated the point from which the ovum came, which, after wandering through the whole of the uterus proper, found its way along the narrow passage into the abnormal horn, and was there developed into a fœtus. Probably no similar instance of the wanderings of an ovum in the human subject is upon record; although Bischoff, the embryologist, was aware of their occasionally traveling in this manner in the lower animals. The peculiar abnormality is also very uncommon. I believe that Rokitansky only knew of one similar case of a rudimentary appendix attached to a uterus.

The museum contains many fine specimens of the various deformities of the pelvis, and among them is a preparation of great interest, illustrating the curious anomaly, first described by Kiwisch, which is termed by Lambl, of Prague, Spondylolisthesis. This deformity consists in a dislocation forward of the fifth lumbar vertebra and the upper segment of the sacrum into the hollow of the pelvis. This preparation has been minutely described and accurately figured by Dr. Lambl, in the last part of Scanzoni's *Beiträge.*

We have still much to say concerning other professors and teachers of the Würzburg school, but the length to which the present paper has already run forbids me entering into details. Scherer, the professor of chemistry, is well known as one of the best organic chemists; Linhart, formerly teacher of surgery at Vienna, is an able clinical professor, a very expert operator, and author of a capital treatise on operative surgery. The oldest professor, the venerable Hofrath von Textor, lectures on surgical instruments, and their uses; the Hofrath, Dr. von Marcus, teaches psychology and history of medicine; and Professor Rienecker gives excellent lectures and clinical instruction on the diseases of children. Ophthalmology is taught by Professor von Welz; and comparative anatomy and microscopy by Professor Heinrich Müller. The latter physician is distinguished by his papers on the retina, and has made the finest preparations extant illustrative of its structure.

And now, in conclusion, I would say, very briefly, that I am not acquainted with any school of medicine which, taken all in all, offers more solid advantages to a hard-working student; and a few weeks could not be more profitably employed by any physician from this country, who is able to speak and understand German, (for in Bavaria, even among educated men, the stock of English is rather scanty,) than in attending the cliniques, and hearing the lectures of the distinguished men whom I have mentioned, in the delightful old City of Würzburg.

Virchow's Cellular Pathology.—The object of Dr. Virchow's work on Cellular Pathology is to establish a new foundation for the creation of a Philosophical Medicine. Dr. Virchow desires to put an end to all the one-sided theories now in vogue—to the theories of the humorist and the solidist; to the crasis, exudation, and blastema, iatro-chemical and iatro-mechanical theories. In the place of all these partial stories, he proposes a knowledge of the fine organic processes of cell-life as the only foundation of a rational doctrine of disease. The cell-theory, and its relation to practical medicine, however, is not altogether a novelty; but according to Virchow it has as yet only reached a certain stage of progress. What has been heretofore done, stands as a mere forerunner to his cellular pathology—just as ideas stand to deeds, and imagination to investigation. The foundation upon which he fixes his deductions are actual histological facts, which he places before his disciples in the shape of microscopical preparations and drawings. It will be said by some that there is nothing new in the founding of pathology on histology. And on this score reference may be made to the last edition of Rokitansky's work, which is filled with numerous microscopic representations of diseased structures. It may be indeed asserted that Rokitansky even laid the axe to the root of his earlier, and somewhat humoral, style of pathology. He has rejected the doctrine of Crases. In his third edition, Rokitansky says: "The origin and increase of cells and nuclei take place, either immediately out of a blastema, as free cells and nuclei, or in mother-cells and mother-nuclei, endogenously;" and he adds, "the extra-cellular origin of these elements out of a free blastema cannot be doubted, in my opinion, at the present moment." Virchow, on the other hand, utterly rejects the theory of the origin of free cells in a structureless blastema; just as elsewhere men reject the theory of equivocal generation. He asserts, that only out of ready-formed structures arise cells; and that out of old cells there is a continual growth and development of new cells, *omnis cellula ab cellulâ.* He substitutes a cell-growth theory for the blastema theory. He does not consider exudation as a peculiar product of the capillary vessels, containing plastic and other constituents; but he regards it as an ordinary transudation mixed with the products formed in the diseased structures outside the vessels, among which products may be mentioned fibrin, pus, mucus, etc. Hence, then, according to Virchow, the inflammatory process does not take place in the capillaries, but in the elements of the tissues themselves—in the cells which through an increased activity attract

the blood to them, and become thickened and swollen. In this manner, by cell-growth and by attraction of the juices, likewise arise all other new formations; the homogeneous, as well as the heterologous and malignant, so also new areola, or bony tissues, pus, tubercle, sarcoma, and cancer, the disease of plants, etc. The history of heterologous forms is this: in a particular place, or at a particular time, or in a particular degree, there arises a growth which is not proper to the part. Some other structure normal in some parts of the body is substituted at the part for the structure normal to it, forming what Virchow calls a pathological substitution of tissues. The malignancy of heterologous growths consists in this: that the tissue affected is, by its vascularity, disposed to form a fluid, which is injurious to the structures around. The dyscrasiæ, also, can only arise through the propagation, by means of the blood, of the products of certain existing local affections. For example, the so-called phlogistic or fibrinous crasis depends originally upon a local production of fibrin in an inflamed tissue—fibrin being always a local product, and never arising in the blood. Many other blood-diseases also depend upon diseased states of the spleen and lymphatic glands—those being glands in which white and red blood corpuscles arise. The disease which authors call pyæmia consists partly of thrombosis and emboli, partly of ichonhæmia, of leucocythemia; the substance which forms the obstruction in phlebitis not being pus, but a purulent-like detritis. Pus arises only out of tissues. Life and disease, in fact, cannot be explained by physical or chemical actions, but are the developments and processes of organized elements.—*Schmidt's Jahrb.—Med. Times and Gazette.*

Vital Statistics.—During thirteen years of observation, Dr. Marc D'Espine, a most persevering statician, has collected 16,856 cases of death from 80 different kinds of diseases. Each of the principal causes of death has been studied separately by him; the deaths caused thereby are divided into twelve periods of ages, and at the same time separated according to sex, and habitation in town or country. A second table gives a distribution of deaths through the twelve months of the year, with a similar division of sex and habitation. Finally, in the text, which accompanies each of these instructive tables, the author gives particular details, which he has not introduced into the tables, such as the powerful influences of fortune. This work of comparison and criticism, which must have cost him great labor and researches, is very precious. It enables us to discover the meaning of the differences met with here and there; and it strongly confirms the conclusions offered in England, Belgium, and Geneva. The author, moreover, is a true statician; he well knows the importance of a critical examination of statistical documents, and he very seldom omits subjecting his own materials to it. Here is one example of his method: *Cancer.*—The cancerous diathesis has a decided preference for the upper classes of society. This cruel disease, which between 40 and 70 carries off more than one-ninth of the population, is a cause of death *twice* as frequent in the upper classes than among the general population; (of 1,000 deaths 111 are of the upper class from this

cause, and 52 only of the general;) and as regards sex, 57 women to 32 men. In cancer of the stomach, 52 deaths in the upper classes to 23 general; of the breast, 14 to 5; of the uterus, 13 to 8.—*Medical Times and Gazette.*

Laudanum in Weak Vision of the Aged.—Professor Nascar, of Naples, says, that in the case of aged persons, whose sight is becoming enfeebled, and requires the aid of convex glasses, great advantage is derived, supposing no nervous lesion exists, from painting every evening the eyelids and brow with laudanum, and allowing this to remain on all night.—*Presse Belge*, No. 27.

Chlorate of Potass in Ozæna.—Dr. St. Arnauld recommends the following injection to be thrown in, or inspired, night and morning, after having cleaned out the nares with some injections of tepid water: Chlorate potass, 32 parts; boiling water, 1,000 parts.—*Ibid.*

Sharp Practice.—Hospital gangrene, as we are told by his son, is cured without fail by Dr. Pinilla, at the hospital of St. Jean de Dieu. He covers the gangrenous part with lint, soaked in concentrated sulphuric acid; filling up any hollows with pellets of lint, soaked in the same! "The pain is excessive for two hours, and then gradually diminishes. A hard, dry, adherent surface is left, which separates in eight or ten days, and leaves a healthy-looking wound."—*Medical Times and Gazette.*

M. Deville asserts that the number of dead births in Paris is greatly on the increase. "From all this," he says, "it follows mathematically," (according to statistical mathematics, it should be understood,) "that the number of children born dead in Paris has constantly increased during the last thirty years. In 1829, the number was 5 per 100; in 1839, 9 per cent.; and in 1849, 11 per cent. The causes he attributes to the too frequent use of ergot of rye in parturition, and to criminal abortion."—*Med. Times and Gazette.*

Atropia in Epilepsy.—Dr. Max Maresch, (Wienerzeitschrieft,) physician to the Vienna hospital for the insane, prescribed the atropia in eighteen cases of epilepsy; three were completely cured, and thirteen much improved.

The one-fiftieth of a grain was given every morning before breakfast, for a period of from sixty to ninety days—an intermission of thirty to forty-five days allowed to the patient, and then the medicine again prescribed. It is important that the patient use neither coffee nor cocoa, as the active principles of these counteract the physiological effects of the atropia.

In the above dose, the usual symptoms of belladonna were produced.—*Med. and Surg. Reporter.*

— The vacancies in the New York Medical College have now all been filled. We noticed last month the transfer of Dr. Peaslee from the Chair of Physiology to the Chair of Obstetrics, and the appointment of Dr. Austin Flint, Jr., to the Chair of Physiology and Micro-

scopical Anatomy. The Chair of Anatomy, left vacant by the resignation of Dr. Timothy Childs, has been filled by the appointment of Dr. James Bryan, of Philadelphia. An additional Chair of Surgical Anatomy and General Pathology has been created, and Dr. C. Th. Meier has been appointed to it.

— Preparations are already being made in the several medical institutions of this city for more thorough and extensive courses of medical instruction than were ever before given. The immense facilities for clinical instruction which this city affords are gradually becoming systematized in the hands of public and private teachers; and the coming winter medical students will find greater advantages for the study of the profession they have chosen, both general and as regards special classes of disease, than ever before. We refer to our advertising sheet those of our readers who desire to learn more about our colleges.

— A new medical journal made its appearance with the month of July, notwithstanding the general lamentation over the sudden termination to the existence of several old journals in different parts of the country. The title of the new applicant to the favor of the reading medical community is the *Cleveland Medical Gazette.* It is edited by Dr. Gustave C. E. Weber, Professor of Surgery in the Cleveland Medical College; appears monthly, in octavo form, comprising 32 pages, including title and advertising pages, and is only one dollar a year. We wish for the editor the fullest realization of his most sanguine hopes.

— Another medical periodical, in the form of a newspaper, has just reached us, which already numbers ten issues. It is published monthly, at fifty cents a year, and is called the *Cincinnati Medical News.* We much prefer the form of the *Belmont Medical Journal*, which is published in the same State—at Bridgeport, Ohio—at the same price. The latter journal contains only sixteen pages of a duodecimo size, but with its cover presents a very neat and agreeable appearance, and carries with it a certain air of stability, which to us the newspaper form never has. If the proprietors of the *News* would fold it in pamphlet form, it would carry in its typographical appearance, as well as in its contents, more of the character of a scientific journal. We doubted its character until we had examined its contents, and thought, after we had satisfied ourselves upon this point, how much better it would be in a compact form convenient to keep; for there is something so ephemeral in the appearance of a newspaper. *Stile, de gustibus, &c.*

THE AMERICAN

MEDICAL MONTHLY.

SEPTEMBER, 1859.

ESSAYS, MONOGRAPHS, AND CASES.

Obstetrical Notes, based on 1,000 *Cases of Delivery.* Read at the Annual Session of "The Medical and Chirurgical Faculty of Maryland," in June, 1859, as the Report of the Committee on Obstetrics. By WILLIAM M. KEMP, M.D., of Baltimore, Md.

[Concluded from the July No.]

II.—PERTAINING TO THE CHILD.

1. *Months of Birth.*

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
92	73	72	65	70	90	88	88	83	100	82	97	1,000

Nearly half a century ago, Villermé, of Paris, in an essay inquiring into the distribution, by months, of human conceptions and births, found his statistics lead to the conclusion that fewer conceptions occur in the warm months of July, August, and September, than in any other three months of the year; and consequently, that the months of April, May, and June furnish fewer births than any other three months. The result in the above table corresponds nearly with this conclusion—March, April, and May offering the fewest births.

2. *Presentation.*

Whole No. of Cases.	Head.	Face.	Face to Pubis.	Breech.	Feet.	Knees.	Arm.	Shoulder.
912	865	2	13	26	2	1	2	1

Proportion of Special Presentations in Whole Number of Cases.

Presentations.	Cephalic Extremity.	Pelvic Extremity.	Arm.	Shoulder.
In 100.....	97	3	$\frac{2}{3}$	$\frac{1}{3}$

Analysis of Presentations with reference to Single or Twin Births.

	Whole Number.	Head.	Face.	Face to Pubis.	Breech.	Feet.	Knees.	Arm.	Shoulder.
Single Births	878	847	2	11	16	1	..	1	..
Twin Births	34	18	....	2	10	1	1	1	1

Two of the breech cases in single births were miscarriages, and not viable. They are included in the Table of Presentations, but will be excluded from Tables of Mortality.

Proportion of SPECIAL PRESENTATIONS *to each Whole Number in Single and Twin Births.*

	Whole Number.	Cephalic Extremity.	Pelvic Extremity.	Arm.	Shoulder.
		in 10	in 100	in 100	in 100
Single Births.....	878	$98\frac{2}{7}$	2	$\frac{1}{3}$	....
Twin Births.....	34	59	$35\frac{5}{17}$	$2\frac{6}{17}$	$2\frac{6}{17}$

MORTALITY *in the different Presentations in Single and in Twin Births.*

	Single Births.					Twin Births.				
		Whole No.	Deaths.		In 100.		Whole No.	Deaths.		In 100.
Head	847	860	10	10	$1\frac{1}{6}$	18	20	1	1	5*
Face	2		..			..		..		
Face to Pubis	11		..			2		..		
Breech	14	15	3	4	$26\frac{2}{3}$	10	12	1	1	$8\frac{1}{3}$
Feet	1		1			1		..		
Knees	..		..			1		..		
Arm	....	1	1	..	....	..	1	1	..	..
Shoulder	....	....	..	..	....	..	1	..	..	..

The three last preceding tables show:

1st. The great disproportion between the number of head presentations in single and in twin births, being in single cases 98 in 100, and in twins 59 in 100.

2d. The greatly preponderant number of presentations of the pelvic extremity in twin cases, being 35 in 100, while in single births it is 2 in 100.

3d. The excessive number of unnatural presentations in twin cases, being 2 in 34, while it is only 1 in 878 in single births.

4th. The diminished mortality in nates presentations in twin cases, being $8\frac{1}{3}$ in 100, while in single labors it is $26\frac{2}{3}$ in 100.

I thought it advisable and instructive to introduce, in this place, the general comparative tables of single and twin births; thus showing the facts at one view, rather than to reserve those leading facts until the subject of twins shall be considered. The specialties of twins will be treated in the appropriate place.

* I have doubts whether this child was dead when born. The circumstances of the case make me think that the woman would have concealed her delivery altogether, if it had been possible. She was alone when this child (the first of twins) was delivered, and, from appearances, I supposed it had been born alive, but died because the woman did not know how to take care of it. She asserted, however, that it did not cry or breathe after its birth. I could discover no marks of violence about it. See comments on case 148, under head of "Twins."

Proportion of Special Presentations in Single and Twin Births, under different Obstetricians. The fractions, with large numbers, are disregarded.

	Single Births.					Twin Births.				
	Whole No.	Cephalic Extremity.	Pelvic Extremity.	Arm.	Shoulder.	Whole No.	Cephalic Extremity.	Pelvic Extremity.	Arm.	Shoulder.
		in 100	in 100	in 100	in 100		in 100	in 100	in 100	in 100
Dr. Metcalf	1746	97	$1\frac{53}{97}$	$\frac{1}{1746}$	$\frac{1}{1746}$	22	68	32	....	....
Dr. Burwell	546	96	$3\frac{181}{273}$	....	$\frac{1}{273}$	20	70	30	....	....
Dr. Kemp	878	98	2	$\frac{1}{9}$	....	34	59	$35\frac{5}{17}$	$2\frac{16}{17}$	$2\frac{16}{17}$

I regret that so few *American* statistics of midwifery have been published. Those which time has allowed me to examine afford, from their omission of minutiæ, no data upon which to construct a table upon this point more extensive than the foregoing.

Face Presentations.—The two children who presented the face were born alive. In connection with the record of the first case, the following note was made in the register at the time: "In this case the violence and rapidity of the pains prevented its rectification." It stands as No. 401 in the register, and I was influenced then by the opinion that all such cases should be rectified if possible. I attempted the rectification, but promptly abandoned it, on account of the strength and frequency of the pains, which, it was apparent, would deliver the fœtus in good time. There was no excessive discoloration or sugillation of the face; and altogether it resulted as well as if it had been a vertex presentation.

In the second case I made no attempt to interfere.

Having received my obstetrical precepts from the teachings of that accomplished practitioner, the late Professor Dewees, I felt impelled to adopt his procedures in the difficulties experienced in my early professional life. His reverence for the authority of Baudelocque indelibly impressed on my memory the assertion of the latter, that "for them (face presentations) to be terminated without help, it is requisite that the head should be very small, and the mother's pelvis, at the same time, very large; otherwise they become very long and difficult, the children are born with the face tumefied and livid, and almost always deprived of life, or ready to lose it, on account of the engorgement of the brain." It was in my mind a fixed precept before I saw a case of face presentation, that in such a labor the position of the head *must be rectified if possible*, whenever the head and pelvis were

of the ordinary dimensions. I was therefore ready, when, at half past 2 o'clock A.M., alone and far from help, I encountered my first face case, to rehearse my aphorism, and proceed to comply with its requirements. The head was not *very small*, neither was the pelvis *very large*, and I trembled for the result in case I failed to rectify the head. The severity and frequency of the pain (and I have no doubt my maladroitness assisted) prevented my succeeding. I saw the effect of the throes advance the head, and, in a sad desperation, I carefully watched its progress. The labor was soon ended; the child was living, and but little disfigured; and I learned a new lesson from observation.

I was induced to study this subject more extensively, and by the time my second case occurred I was prepared to meet it composedly, and let it make its own way into the world.

The mind of the profession has been divided as to the proper course to be pursued in face presentations. Until the latter part of the last century, the majority of obstetricians believed that it was *almost* impossible for these labors to be accomplished without assistance, and the discussion of the question with them was limited to the kind of assistance to be afforded.

Turning was at first considered as the only orthodox practice, and an attempt to afford relief by any other means became allowable only when turning was impracticable. So strong was this belief, that even Dr. Davis, of England, says, in his Elements of Op. Midwifery, "There can, in my opinion, be no doubt of the preferableness of turning to all other modes of treatment." When, more than one hundred years ago, Gifford published two cases of face presentation, delivered by the extractor, he appears to have felt it necessary to offer something like an apology to the profession for not practicing version; for he introduces the remark, that version is extremely difficult when the waters have been discharged, and the child is closely embraced by the uterus.

The history of the subject furnishes, from time to time, the opinions of those who entertained different views, and adopted a practice conformable to their convictions. Portal, La Motte, Deleurye, and others, had unequivocally asserted from observation, or published cases demonstrative of the fact, that face presentations do not necessarily require artificial assistance; but that, in the words of Portal, "in such cases no violence must be used, but nature be left to its own course; which done, there is no danger to either mother or child." Notwithstanding the expression "no danger," in Portal's opinion, the reports of cases left to nature show a somewhat increased mortality over vertex presentations.

Nothing tended to illuminate the subject so much as Boer's publication, in 1793, of eighty cases of face presentation, which occurred in the Vienna Lying-in Hospital. Of the eighty cases, but one was assisted, and there were three or four of the children born dead.

A careful study of the relation of the diameters of the child's head to the diameters of the pelvis during the transit of the fœtus, will show an adaptation almost as favorable as in vertex cases, and (except when the chin turns into the concavity of the sacrum) offering but little more embarrassment to its expulsion from the vulva. Let any one perform the mechanism of this labor on the obstetric fantom, and he will discover that the three diameters of the fœtal head to be regarded in face presentations, are the fronto-mental, the bi-malar, and the trachelo-bregmatic, which correspond respectively with the occipito-frontal, the bi-parietal, and the cervico-bregmatic in vertex presentations, and offer about the same measurements.

These *two* cases of presentation of the face, in one thousand deliveries, correspond very nearly with the general average as disclosed in United States statistics.

Face to Pubis.—I can give an analysis of only twelve cases in which the face was towards the pubis; and as there may be several points of interest in their detail, they are presented in tabular form.

Analysis of Cases presenting Face to Pubis.

Number of Case in Register.	Number of Labor.	Sex.	Weight.	Alive or Dead.	Single.	Twin.
195	4	B	7½	Alive.	Single.	....
216	5	B	10	do.	do.	...
259	4	B	7½	do.	do.	....
265	1	B	..	do.	....	1st Twin.
283	2	G	7	do.	do.	....
293	6	B	9	do.	do.	....
370	2	B	8½	do.	do.	....
382	5	G	9¾	do.	do.	....
459	5	B	8½	do.	do.	....
513	3	G	..	do.	do.	....
532	6	G	..	do.	do.	....
540	5	B	..	do.	....	2d Twin.

Cases 216 and 293 were in the same person, and 370 and 513 were also in the same person; in both instances, it will be perceived, the labors were consecutive.

It is a little remarkable that the first occurrence should be only at the 195th case; and although the different numbers are not widely separated, there was no case from 540 to 1,000. This may be possibly accounted for, in part, by the fact that somewhere about the time of the occurrence of the last case, I became interested in determining, by my own observations, the accuracy of the great Heidelberg professor's opinion, that at the commencement of labor the cases of the 5th position of vertex (Baudelocque) were much more numerous than the second. This led me to ascertain, as early as practicable, the precise points about the presenting part; and I find, in the column of the register for remarks, such comments as the following: "5th position naturally rotated into 1st;" "4th naturally converted into 2d;" "4th changed by hand to 2d," &c.

I am certain, however, that the number from 540 onward would have been much less than previously.

There was nothing specially interesting in any of the cases, except Nos. 216 and 370, in which the labor was considerably more tedious than I thought would have been in a vertex case.*

Presentation of the Shoulder.—This was the second child in a case of twins; the first child was a vertex presentation. It stands No. 148 on my register, and I sincerely regret that my notes on the case give nothing of the mode of the second delivery, except the remark, "Cephalic version was successful, and it was born as a head case."

* It is a very important point not to confound the mechanism of labor in which the face is to the pubis, with the mechanism of labor in face presentations; nor to suppose that these two modifications of head presentations offer to the touch the same impression.

To one who observes carefully the exit of the head from the vulva, when the forehead is at the pubic symphysis, the extreme distention of the vagina and perineum affords just ground for fearing laceration of these soft parts. The cause most usually assigned for the increased risk of perineal rupture is, that the coaptation of the forehead to the arch of the pubis being less complete than that between the arch and the vertex in vertex cases, the head must in the former position press backward more strongly, and thus distend the perineum more extensively in order to escape at the vulva. But as, in this delivery, the vertex is born first, and turns posteriorly to allow the face to emerge, the forehead is very seldom brought under the arch until after the vertex has escaped. The forehead is behind rather than under the arch, and the diameter of the head which expands the vagina is that traversing the head from the back of the neck to the anterior fontanelle, the cervico-bregmatic; after the escape of the vertex, the fourchette and perineum are compelled to bear the strain of the whole power that is necessary to bring the forehead between the rami of the pubis, as it passes into the world.

The child was saved. I have no accurate recollection of the manner in which it was accomplished, and will not venture any explanation.

Presentation of the Arm.—There were two cases of presentation of the arm; one a single birth, the other the second child of a twin labor. Both were delivered by version, and both were dead.

Presentation of the Pelvic Extremity.—As the cases of breech, knee, and foot presentations resolve themselves into the same condition towards the completion of delivery, they may properly be considered in one group.

The 1,000 cases of delivery furnished 29 cases of presentation of pelvic extremity, of which 26 were breech, 2 feet, 1 knees.

Two of the breech cases were abortions; and as they were consequently not viable, they will be excluded from tables in which mortality is calculated.

Analysis of Presentations of Pelvic Extremity.—Excluding the two breech abortions in single labors, in which the children were not viable, we have 27 cases remaining for analysis.

Cases.	No. of Labor.	Sex.	Presentation.	Alive.	Dead.	Single Labor.	Twin Labor.
1	12	.....	Breech.	Alive.	.....	Single.	.. ..
2	3	Boy.	do.	.....	Dead.	do.	.....
3	3	Girl.	do.	do.	.....	do.	.....
4	..	Boy.	do.	.....	do.	do.	.....
5	2	Girl.	do.	do.	.....	do.	.....
6	7	Boy.	do.	do.	.....	.....	2d twin.
7	2	Boy.	do.	.....	do.	do.	.....
8	1	Boy.	do.	.....	do.	.....	2d do.
9	1	Boy.	Feet.	.....	do.	do.	.....
10	4	Girl.	Breech.	do.	.....	do.	.....
11	..	Boy.	Feet.	do.	.....	.....	2d do.
12	3	Girl.	Breech.	do.	.....	do.	.....
13	6	Girl.	Knees.	do.	.....	.....	2d do.
14	1	Boy.	Breech.	do.	.....	do.	.....
15	5	Boy.	do.	do.	.....	.....	1st do.
16	1	Girl.	do.	do.	.....	do.	.....
17	4	Boy.	do.	do.	.....	.....	1st do.
18	4	Girl.	do.	do.	.....	.....	2d do.
19	.....	Girl.	do.	do.	.....	.....	2d do.
20	1	Boy.	do.	do.	.....	.....	2d do.
21	4	Boy.	do.	do.	.....	do.	.....
22	3	Boy.	do.	do.	.....	.....	1st do.
23	.....	Boy.	do.	do.	.....	.....	2d do.
24	.....	Boy.	do.	do.	.....	do.	.....
25	.....	.....	do.	do.	.....	do.	... .
26	4	Boy.	do.	do.	.....	.....	2d do.
27	6	Girl.	do.	do.	.....	do.	.....

The table, condensed, gives the following points:

Whole No. of Cases.	Breech.	Feet.	Knees.	Males.	Females.	Alive.	Dead.	Single Child.	Twin Child.
27	24	2	1	16*	9*	22	5	15	12

The delivery of the cases (excepting Nos. 7 and 16) was accomplished without instrumental aid.

Cases No. 2 and 3 were the respective lady's second breech labor.

Cases 12, 21, 27 occurred in the same lady.

Case No. 4 was delivered of the child by a midwife.

Case No. 9 was not delivered under my superintendence.

The child in Case 7 was very large, and, not presenting a due correspondence of diameters with the diameters of the pelvis, it became literally jammed into the passages, and I was called to the assistance of the physician in charge. After much exertion, the delivery was secured with entire safety to the mother, but with the loss of the child.

Case No. 16 was a primipara. The only interference in her case was the use of a ribbon in the groin to facilitate the descent. The danger to the child begins especially with the delivery of the umbilicus, and becomes greatest when the head enters the pelvic straits. A few practical aphorisms treasured in the memory become eminently useful to the young obstetrician in his early experience in these cases.

Frequency of Presentation of the Pelvic Extremity.

	Whole No. of Cases.	Breech.	Feet.	Knees.	Total.	In 100.
Dr. Van Bibber	4,192	61	20	..	81	1.93
" Bliss	771	16	8	..	24	3.11
" Storer	440	5	3	..	8	1.81
" Pleasants	400	7	3	..	10	2.5
" Burwell	598	17	9	..	26	4.34
" Pierson	265	1	3	1	5	1.88
" Metcalf	1,768	18	13	3	34	1.35
Bellevue Hospital	1,348	27	20	..	47	3.48
Dr. Potter	247	3	9	..	12	4.85
" Warrington	332	8	..	..	8	2.40
" Kemp	912	26	2	1	29	3.17
Total	11,273				284	

* The sex of two of the children was not noted.

The totals give an average of a little more than $2\frac{1}{2}$ presentations of the pelvic extremity in 100 deliveries.

An examination of the table reveals a great difference in the average of pelvic presentations as they are presented in the different statistics. I shall not attempt to form an opinion as to the cause of such discrepancies, believing that no fixed law determines these things, and that no practical good could result from such inquiry. It is interesting only as constituting a part of the facts which make up the entirety of obstetrical statistics. A far more interesting study is the mortality in breech cases, and the best means of procedure to lessen that mortality—or, in other words, to have our minds posted with a knowledge of what we are not to do, as well as with what it may be necessary for us to do in these cases.

I had designed to prepare and introduce, at this place, a table giving as full details as possible in reference to the ratio of mortality in presentations of the pelvic extremity of the fœtus, but upon examining the statistics I find that the reports are so meagre in details necessary for a useful table, that but little practical information could be gathered. I had designed also to analyze the facts of the table, and to deduce whatever of value in practice might appear in their results. I hoped to do this from the statistics which the practitioners of the United States have contributed to the journals, and thus arrive at the practical views which govern the obstetricians of our own country. I shall be glad to know that some abler hand may undertake this duty, and furnish this United States experience to the profession.

Mortality.—I can only comment on the mortality exhibited in my own table, and present such reflections as may appear apposite. It will be observed that in the last eighteen cases no child was lost. I have no doubt that the practical views which control the management of the delivery of breech cases have much to do with the fate of the child; and I regard it to be incumbent upon every one who undertakes to preside at a breech labor, to have in his mind a code of rules, embracing details, calculated to insure the most successful results to both mother and child.

I may, therefore, expect to be pardoned for giving a few of the points which I think should be regarded with much care in these cases. The books teach with distinctness their prominent and general circumstances, and enlarge sufficiently upon their indications and management. These cannot be even adverted to upon an occasion like the present.

The practical precepts which, in my judgment, should regulate the accoucheur's conduct in uncomplicated presentations of the pelvic extremity, are:

1st. The presentation of the nates can seldom be perfectly diagnosticated by the touch before the rupture of the amniotic membrane, because the presenting part generally remains high in the pelvis for a considerable time after the commencement of labor; and as the remoteness of the presenting part is not peculiar to the nates, *therefore*, in all such cases, *a careful examination must be made immediately after the discharge of the waters, to ascertain the precise characters and position of the presentation.*

2d. If the knees are presenting, they may rest upon one side of the pelvis and prop the breech upon the opposite side, so as neither to advance themselves, nor to allow the breech to traverse the pelvis; *therefore*, in knee presentations, when the knee is disposed to rest against the side of the pelvis, *if the uterus is abundantly dilated, push up the whole of the presenting parts in the absence of pain, and bring down the feet; then leave the case to the natural powers.*

3d. *In breech and feet presentations, do not bring down the feet to expedite delivery. The evil effect of such ill-advised measure is experienced when the head comes to be delivered.* There is high authority for bringing down the feet in breech cases, but the *weight* of authority and the teachings of experience are against the operation. The presumed necessity for any interference arose, at first, from the supposition that the pelvis did not afford room for the child to pass in this doubled condition, and hence cephalic version was the remedy proposed. This not succeeding, it was first proposed and practiced by Ambrose Paré, to bring down the feet, in order to lessen the bulk and to facilitate the delivery. Several later writers have advocated the practice. *But it is unquestionably a bad practice.* Ramsbotham tells us that William Hunter was once an advocate for this procedure; but afterwards he adopted the opposite views, and was accustomed to acknowledge in his lectures, "that when he used to extract the legs before the breech, he lost almost every child; but when he changed his mode of practice, and let the breech pass double, and did not allow the legs to escape until after the knees were born, he was much more fortunate in saving the children."

4th. In nates presentations the arms are generally in close apposition to the sides, with the forearms flexed and crossed on the breast; and the labor is finished with more facility if the arms continue in this position, than if, from any cause, the elbows become arrested in

their descent, and the arms become unfolded and extended on the sides of the head as it enters the pelvis. *Therefore do not draw upon the breech to hasten the descent of the child, but let it be accommodated slowly to the passages, lest the diameters of the child may not be accurately adapted to the diameters of the pelvis, and the elbows may be arrested and the arms unfolded.*

5th If it be important to aid in the descent of the breech, recollect that the fœtus, by coinciding with the axis of the upper strait, will descend with the anterior hip in advance of the posterior, until it reaches the floor of the pelvis. At this point rotation occurs, and, as now the axis of the lower strait is to be traversed, the posterior hip advances, while the anterior one remains nearly stationary at the pubic arch; *therefore, in giving aid to the descent of the breech before it fully occupies the cavity of the pelvis, the greater amount of traction must be made on the anterior groin; but after the breech occupies the cavity, traction must be made on the posterior groin.* ALL EFFORTS OF THIS KIND MUST BE MADE IN ASSISTANCE OF THE PAINS, AND, IN THE ABSENCE OF MOST URGENT NECESSITY, SHOULD NEVER BE EMPLOYED WHEN THE PAIN IS OFF.

6th. When the breech is born, the temptation is very great to draw upon it and help the labor along; FORBEAR.

7th. When the umbilicus is born, the cord is apt to become tense, and evil may result; *therefore the cord should be drawn down to a sufficient extent to prevent any tension during the delivery of the superior parts of the fœtus.*

8th. After the delivery of the umbilicus, and the relief of the cord, ascertain the position of the arms. If they do not descend with the breast, by the natural powers, they will be placed by the sides of the head in its transit through the pelvis, and may retard delivery. *It is well, therefore, to bring them down at this stage. The posterior arm should be brought down first; the power should be applied, as nearly as possible, at the elbow, and the arm brought over the face and breast.*

9th. As the shoulders are about to emerge from the vulva, the head is engaging in the pelvis. As the descent of the head will be facile or delayed according to the extent of its flexion in bringing the chin close upon the breast, and as the pressure of the uterine contraction is the means by which this flexion is secured, *therefore do not hurry the shoulders through the outlet, lest, by partially withdrawing the head from the uterine power, you not only prevent its flexion, but may cause such a degree of extension as to embarrass the further descent of the head.*

10th. When the shoulders are fully born, the head has engaged in the pelvis, and has descended, perhaps, entirely beyond the influence of

the uterus; its further expulsion by uterine contraction cannot be hoped for; *therefore, in this state, exhort the patient to exert her powers in bearing down, so that the abdominal and pelvic muscles may detrude the head.*

11th. There is great danger to the child if the head is long delayed in the pelvic passages, for the cord will be compressed between it and the pelvis; thereby the fœtal circulation will be arrested; and, as there is more or less separation of the placenta and compression of the uterine sinuses occasioned by the tonic contraction of the organ closing its cavity after the receding child, the fœtus will fail to receive due supplies of oxygenated blood, and may fall a victim to asphyxia or cerebral congestion; *therefore endeavor to afford the child an opportunity to respire, and thus to decarbonize its own blood.* To accomplish this, *elevate the child's body towards the abdomen of the mother, and pass the hand* (not a few fingers) *along the posterior wall of the vagina until the points of the fingers fully pass the mouth; then press back the soft parts, so as to afford access for air to the child's mouth.*

12th. *Never pull upon the body to deliver the head, for thereby the head is likely to be extended, and the delivery made more difficult;* but if there arise a necessity for interference to disengage the head from the pelvis, *adopt the procedures taught in the books for promoting a greater flexion of the head, and a closer approximation of the chin to the breast;* then extractive force exerted upon the shoulders may be made successfully.

3. *Mortality in Individual Instances.*—Of the 11 deaths *in head presentations*, (10 single and 1 twin,)

Three were dead before the incursion of labor.

Two were in cases of placenta previa.

One in a case of contracted pelvis, with tedious labor, delivered finally by the forceps.

One in a narrow pelvis. In this case the labor was protracted. In the last preceding pregnancy, I delivered the lady of a living child with forceps, after having suffered the labor to linger for some hours; but the case having been criticised by an authority whose experience was supposed to have made him a competent judge, the present case was allowed to progress with strict reference to the injunctions laid down by leading English authors. The mother's condition was regarded as the indication for interference. Her state required no assistance, and the natural powers were left to finish the labor. In her subsequent pregnancy, the same condition of labor prevailed, but

as soon as the soft parts fully warranted interference, I applied the forceps, and delivered a living child.

One was in a case of convulsions.

Of the *breech cases* I have no special notes. One was the second child of a twin birth.

Of the *arm cases*, two in number, both were dead-born.

The first occurred March 29, 1835. Whilst the lady was dining, the membranes ruptured without any premonition, and a large amount of water escaped. The patient lived more than three miles from my residence. I was immediately summoned. When I reached the case labor was active, and examination discovered an arm presenting, doubled on itself at the elbow. I immediately informed the family of the difficulty to be apprehended, and, being in my professional novitiate, desired consultation. The gentleman who came to my assistance, diagnosticating a *knee*, insisted, against my remonstrance, in bringing down the *foot*. This he attempted, but it proved to be the *hand*. I proposed to subdue the powerful action of the uterus by venesection and anodynes, and to deliver by version. He dissented, but proposed to remove the arm at the shoulder, &c. This led to the calling of additional assistance. Uterine pains were abated by a very large bleeding, with large doses of opium, and a very large child was delivered by version. In three weeks the woman walked to the city and rode home in a wagon without springs, but sustained no appreciable injury.

The other arm case was the second child in a twin labor, delivered by version.

4. *Time of Birth.*—In 495 children, the precise time of birth is noted. These give 249 born between six o'clock A. M. and six o'clock P. M., and 246 born between six P. M. and six A. M.

In 526 children, (including the foregoing,) the births marked A. M. or P. M., counting midnight and meridian as the extremes, were as follows: 301 A. M., 221 P. M., 4 M.

5. *Sex.*—In 788 children noted, there were 427 boys and 361 girls.

6. *Weight.*—Fractions are disregarded.

Pounds....	3	4	5	6	7	8	9	10	11	12
Children...	1	1	4	12	36	47	48	9	2	..

Making the average weight of 160 children to be about 8 pounds.

7. *Position of Presentation Changing.*—The views of Naegele took the professional world somewhat by surprise, when his published opinions were found to controvert the order of frequency in which presentations of the head were presumed to occur. I was induced to examine my cases more carefully, and as early as the condition of the os uteri would permit, and I became satisfied that many of the cases delivered in the second position of the head (vertex to right acetabulum) were in the commencement presenting with the vertex at the right sacro-iliac junction, (4th of Baudelocque.) Nay, more than this occurs; for I have, with the finger on the presentation, followed the head in its change from the 5th position to the 1st, and have received it at the birth as though it had been an original first.

The mobility of the head, while it is above the upper strait, is so great, that the voluntary movements of the fœtus frequently sweep the extremities of the cranial diameters over almost the entire semi-circumferences of the basin. This may be easily verified by retaining the finger in contact with the head in the intervals of pain. It appears, then, very plain that, at whatever point of the circumference of the strait the vertex may be when a pain occurs that will force it to engage in the strait, it will maintain that position until it descends to the point where rotation is to be effected. Under these circumstances, the vertex may engage at either extremity of the oblique diameters, if it be found there when the pains thrust it down into the strait. But if the child be small, or the pelvis be large, the position will continue to the end of labor; otherwise, the vertex will be rotated forward on its side of the maternal pelvis, and be delivered at the pubis.

While the fact of change of position is undeniable, my observations do not bear out Naegele's assertion, that the 4th presentation of the vertex is more frequent than the 2nd, at the beginning of labor.

This subject presents many points of interest to those who delight in recognizing the wisdom and the goodness of God, as manifested in all his creations, and the wonderful adaptedness of all his designs to subserve the best interests of his creatures. We here see structures arranged apparently for a certain end, and those ends accomplished almost universally with great precision, by means which we cannot fully understand.

The fact that the fœtus almost always presents in a manner calculated to enable the natural powers to effect its delivery, is, in itself, an incontestible evidence of a wise Designer and Creator. The remarkable tendency which malpositions of the head manifest, to be

reduced to some natural presentation, and thereby render the delivery more conformable to the mechanism of the more favorable; the wonderful propensity of the vertex, when it presents posteriorly, to offer at the pubis in the last stage of labor, thus securing the most happy result from an inauspicious beginning; the law or force which determines the rotation of the vertex into the hollow of the sacrum, and brings the chin to the pubis in face presentations, in which, if the vertex be brought to the arch, a life is almost necessarily lost;—these demonstrate a most wonderful, wise, and good Creator. Moreover, in every variety of nates presentation, if the case be not injudiciously interfered with, the same incomprehensible power has ordained the rotation of the face to the sacral excavation as the most constant mechanism, and the one by which the probabilities of the infant's life are greatly enhanced.

These phenomena cannot fail to excite in the reflecting observer emotions of admiration and most profound reverence.

The mysteries connected with the inception of vitality in the ovum, and the remarkable arrangements for the perfection of that life with the organic development of the fœtus, are but a part of the series of displays of infinite power, wisdom, and goodness in this portion of creation. How true are the words of the gifted but unfortunate Boyse:

> "E'en the weak embryo, ere to life it breaks,
> From his high power its slender texture takes;
> While in his book the various parts enroll'd,
> Increasing, own eternal Wisdom's mould."

8. *Twins.*—The 1,000 deliveries gave 19 cases of twin labor.

Two of the labors were abortions, with boys, before the children were viable, and a note of the sexes only was made. Nothing occurred different from the circumstances of a single abortion, except that in one case there was considerably more blood lost than usually attends an ordinary case.

These two cases will properly be excluded from any calculation of mortality, but will be used in the comparison of sexes.

Analysis of Twins.

No. in Register.	No. of Labor.	Presentation.		Sex.	Weight.	Interval between Children.	Alive or Dead.
57	1	Head.	Head.	B. B.	.....	.....	A. A.
108	6	.....	.....	B. B.	.....	.....	.....
136	..	.....	.....	B. B.	.....	.....	.....
148	1	Head.	Shoulder.	G. G.	.....	11½ hours.	*D. A.
226	7	Head.	Breech.	B. B.	6¼ 6½	25 minutes.	A. A.
265	1	Face to Pubis.	Breech.	B. B.	.....	.....	A. D.
333	2	Head.	Head.	B. G.	5½ 6½	.....	A. A.
415	4	Head.	Feet.	B. B.	.....	.....	A. A.
463	6	Head.	Knees.	G. G.	6½ 6½	45 minutes.	A. A.
540	5	Breech.	Face to Pubis.	B. B.	.....	20 minutes.	A. A.
574	..	Head.	Head.	B. G.	.....	1 hour.	A. A.
590	1	Head.	Arm.	G. G.	.....	1½ hour.	A. D.
600	4	Head.	Breech.	B. G.	.....	20 minutes.	A. A.
609	2	Head.	Head.	B. G.	.....	15 minutes.	A. A.
635	..	Head.	Breech.	G. G.	.....	15 minutes.	A. A.
666	1	Head.	Breech.	G. B.	.....	.....	A. A.
730	3	Breech.	Head.	B. G.	.....	.....	A. A.
794	1	Head.	Breech.	B. B.	.....	.....	A. A.
878	4	Head.	Breech.	B. B.	.....	.....	A. A.

Nos. 108 and 136 were abortions—the children not viable.

Nos. 108 and 226 occurred in the same person. The latter number was her third twin labor.

No. 136 was the lady's third twin labor.

No. 600 was the lady's second twin labor.

Nos. 730 and 878 were consecutive labors in the same person.

The nineteen labors were afforded by seventeen individuals, of whom,

13 produced twins for the first time.

2 " " " second time.

2 " " " third time.

Preceding Table Condensed.

First Child.						Second Child.					
Presentation.	Total.	Alive.	Dead.	Male.	Female.	Presentation.	Total.	Alive.	Dead.	Male.	Female.
Head.....	15	14	*1	10	5	Head.....	6	6	....	2	4
Breech	2	2	....	2	....	Breech	7	6	1	5	2
.....	....	....	....	....	....	Feet.....	1	1	....	....	1
.....	....	....	....	....	....	Knees	1	1	....	....	1
.....	....	....	....	....	....	Shoulder.....	1	1	....	....	1
.....	....	....	....	....	....	Arm.....	1	....	1	....	1
Abortion	....	....	....	2	....	Abortion	....	....	....	2	....

* See note to Table of "Mortality in the different Presentations in Single and in Twin Births," under the head of "Presentations."

The presentation of the shoulder was converted into one of the vertex by cephalic version, but as, at the time of its occurrence, I made no extended note of the manner of its being accomplished, I think it improper to do more than state the mere fact that it was done.

This case (148) is interesting, however, in other particulars which were fully noted at the time. The woman was alone when her first child was born, at 1 o'clock, A. M. She says she had great hæmorrhage after the birth of the first child until something pushed down into the upper part of the vagina, at which time the bleeding ceased. I saw her first at 10 o'clock, A. M., nine hours after the birth of the child. There was no hæmorrhage now. The placenta was partly in the vagina and partly in the uterus. I removed it; discovered another child in utero. She had very trifling pains. I waited until 12 M. The membranes of the second child were still entire. The indisposition of the uterus to act with decision caused me not to interfere hitherto. At 12 M. I gave her fifteen grains of ergot, which acted slowly, producing a moderate amount of pain. I ruptured the membranes and then promptly examined again, and detected the shoulder. This was rectified, and the head, brought to the strait, was delivered in a short time. The child was alive, but feeble.

A point of considerable interest is the length of time during which the placenta was detached, before the birth of the second child. About eleven hours must have elapsed between the separation of the first placenta and the birth of the second child, allowing that the sensation of something pushing into the vagina marked the time of the casting off. The occurrence of circumstances like these has greatly modified the opinions formerly entertained of the danger to the second child, as well as of the hazard to the mother from hæmorrhage. We might here advert to the manner of vascular connection between the uterus and placenta; the source of hæmorrhage, when a portion of the placenta is separate from the uterine wall; and the probable reason why hæmorrhage is generally suspended by the total detachment of that mass. This would involve a review of the many interesting experiments and dissections which have been made upon the human subject, as well as upon inferior animals, and would require a discussion of the proper application of these facts in directing the practical treatment of cases not infrequently occurring in the experience of accoucheurs. However interesting and profitable the consideration and attentive study of these cases may be, we are forbidden, by the occasion, to enlarge upon them. We will dare, however, to urge the members of this faculty to give great diligence to the study of the

later literature of this subject, as affording much that is interesting in fact, and that conduces to the highest good of those who intrust their lives and their health to the knowledge and judgment of the medical practitioner.

The presentation of the arm (Case 590) occurred with a second child, and was delivered by version.

Case 226 was the lady's third pregnancy. The two children appear to have had originally separate placentæ; but in the progress of gestation they became united to a sufficient extent to allow the coalescing and fusing of the two chorions. The delivery showed that each child had his funis and amnios distinct, whilst a common chorion enveloped them both. By the laws, generally acknowledged as operative in the production of monsters, we must suppose that if, in a case like this, the amniotic sacs had had their contiguous portions removed so as to allow contact between the germinal membranes of the children, and the position of the children had been similar, the result would, most probably, have been a fusion of the children and the birth of a monster. But as the presentations were respectively head and breech, no monster would have resulted. The case is suggestive of many interesting reflections, in which, however, we must not now indulge.

In Case 463 the two placentæ were fused for a considerable extent of their circumference, and came away united in this manner.

In Case 540 there was one large placenta, but a distinct funis for each child.

In Case 609 the birth of the first child was perfectly ordinary. In ten minutes after its delivery a powerful and continuous pain delivered the second child enveloped in its membranes, with one large placenta common to the two children.

The following table demonstrates a varying proportion of twin cases, as they occur in different series of observations:

	Whole No. of Cases.	Twin Cases.		Authority.
Dr. Warrington...	354	3	1 in 118	Am. Journal Med. Soc. N. S., Vols. 1, 3, 5.
" Burwell.....	588	10	1 in 59	" " " " 7
" Bliss	820	8	1 in 102	" " " " 14
" Pleasants	420	5	1 in 84	" " " " 15
" Storer	451	5	1 in 90	" " " " 20
" Pierson	274	5	1 in 55	" " " " 34
" Metcalf	1,786	11	1 in 162	Annual Address Mass. Med. Society, 1856.
Bellevue Hospital.	1,410	23	1 in 61	" " "
Dr. Potter.....	304	2	1 in 152	" " "
" Cock.....	533	15	1 in 36	" " "
" Van Bibber...	2,503	17	1 in 147	Med. & Chirurg. Faculty of Md., 1855.
" Kemp.....	1,000	19	1 in 53	
Totals.....	10,443	123		

This table gives, by considering the totals, a general average of one twin labor in about 85 cases.

I have heretofore cited only statistics furnished by practitioners in the United States, because I have been anxious to arrive at the result of *American* experience, as that which most concerns us, and should ever be a subject of much interest to those who estimate their country aright.

I contemplate, with gratification, the day when the published experience of physicians in the United States will be sufficiently full to furnish a mass of American facts which shall be a rich contribution to the literature of obstetrics, and when the principles and laws deduced from these facts shall be considered necessary aids in determining great questions of science. Let our practitioners but carefully record their cases, and publish the results of a sufficiently extensive series of observations, and the United States will command her honorable rank in the scientific councils of the world.

The comparative frequency of twin labors in different countries may be seen by connecting the totals of the last table with a table of European statistics given by Churchill.

	United States.	British.	French.	German.
Whole Number, ...	10,443	161,042	36,570	251,386
Twin Labors, ...	123	2,477	332	2,967
1 in	85	69	110	84

Sex of Twins.—It may not be uninteresting to refer to the sexes of twins, as appear by the following table:

No. of Cases.	Both Male.	Both Female.	Male and Female.	Total Males.	Total Females.
19	9	4	6	24	14
in 100	$47\frac{7}{19}$	$21\frac{1}{19}$	$31\frac{11}{19}$	$63\frac{3}{19}$	$36\frac{16}{19}$

This series shows a different result from other published tables, in the following particulars:

1st. In the number of "Both Males" being greater than "Both Females."

2d. In the number of "Male and Female" being greater than "Both Females."

3d. In the number of "Total Males" being greater than "Total Females."

The following tables give United States and English numbers:

Author.	No. of Twin Cases.	Both Males.	Both Females.	Male and Female.	Country.
Dr. Metcalf's Table.....	38	11	17	10	U. States.
Dr. Kemp's Cases	19	9	4	6	Do.
	57	20	21	16	
Dr. Churchill's Table.....	457	131	145	181	England.
Dr. Ramsbotham's Cases..	536	171	183	182	Do.
	993	302	328	363	

9. *Children Diseased.*—One of the children gave incontestible evidence of disease arising from syphilis in the father.

In one case the child died about the $4\frac{1}{2}$ month of gestation; the only assignable cause being syphilis in the mother. The child was retained until the full period, and the entire ovum was then born in one mass; the placenta and membranes enveloping the child unbroken.

Another case, illustrating the communication of small-pox to the fœtus in utero, is sufficiently interesting to justify a narration of the circumstances.

A lady was seized with a chill, followed by high fever and great headache. During the evening labor came on. After her delivery, symptoms, anomalous in the parturient, persisted, unattended by any indications of metritis, peritonitis, or any apparent phlegmasia. The symptoms resembled those of a severe malarious fever, yet no plausible occasion of such attack could be assigned. On the third day an eruption bestudded her surface, attended by a decline in her arterial excitement. I diagnosticated variola, and immediately vaccinated the infant. On the seventh day after birth variola appeared upon the infant, and pursued its ordinary course. The child survived the disease, and recovered perfectly. The circumstances evidently show the infection of small-pox in the infant while it was in utero.

One child died of idiopathic umbilical hæmorrhage.

10. *Deformed.*—There were eight cases of deformity, and one case of absence of the anus and lower part of rectum. Of these,

One was a case of double hare-lip and double cleft palate.

Two were cases of single hare-lip and cleft palate.

Two were cases of club-foot. These were interesting, and, being worthy of note, will be described more at length presently.

One was a case of tumor on occiput. This will be described presently.

In one child the two first fingers of left hand were adherent to the second joint.

In one child (a breech presentation) the thighs were adherent to the anterior wall of the abdomen until within a very short distance from the knee. The integument of the abdomen was continued around each leg throughout the entire distance of the adhesion. One arm was adherent in like manner to the neck and face as far as the elbow, and the shoulder-joint of that arm was immovable after the attachment of the arm to the neck and head was severed. If the child had been a head presentation, it is very likely the thighs would have been torn from their adhesion to the abdomen in its delivery. It lived for some hours after its birth.

Club Feet.—The two cases were children of the same parents. A perfect child was produced at an intermediate birth. The first case was clubbed in both feet; one foot was an extreme degree of varus; the other foot was a less degree of the same variety. The second case was one of varus also, one foot only being distorted. The great practical interest of these cases consists in their both having been perfectly restored by the use of apparatus, without any operation. The plan of treatment was that detailed by Dr. Heber Chase, of Philadelphia, in the *American Journal of Medical Sciences*, New Series, Vol. I., p. 88; and also in the *Maryland Medical and Surgical Journal*, Vol. II., p. 181. I must not, on this occasion, detail the particular steps of treatment, but I will most earnestly endeavor to impress these cases upon your memory, that you may be prepared to adopt so successful and so simple a plan of cure, in any cases that may fall under your observation. The complete success in these cases proves the correctness of the principles which the apparatus is designed to carry out so completely.

Tumor on Occiput.—This case was in charge of a very intelligent gentleman, who had watched it for some hours, and when he felt embarrassed was, very properly, unwilling to institute any procedures without counsel. When I examined the case I discovered a round, firm body, closely resembling a child's head, but without fontanelles or sutures, occupying the cavity of the pelvis. Upon exploring it fully, it presented the same characteristics at every point of its sur-

face, except a circular space about the size of a dime-piece. Pressure upon this spot detected a contained fluid. It was impossible to discover the part to which the tumor was attached, inasmuch as its size and extreme firmness prevented any examination beyond. The tumor was pierced at the soft spot, and the contents discharged. This afforded an opportunity to ascertain that the vertex was ready to engage in the upper strait. The finger was inserted into the rent in the tumor, and traction made by it upon the head, which promptly entered the pelvis and was born by a few pains. The tumor was covered by a prolongation of the integuments from the junction of the nucha and occiput; its walls were firmly cartilaginous, and its cavity evidently communicated with the cerebro-spinal canal.

Absence of Anus.—In this case an operation was performed to find the lower terminus of the bowel. Selecting a spot where we supposed the anus should be, a very careful exploration was made by Professor Baxley, in the direction of the ordinary course of the rectum, until he had penetrated the distance of more than an inch, when a slight appearance of meconium announced that the bowel had been reached. The opening was delicately enlarged, and the operation was completed. For a day or two there were hopes of success, but an inflammation supervened internally, and the child died.

11. *Fœtus Retained from Early Months.*—Several cases occurred in which the fœtus perished in the early months of pregnancy, but was retained until the expiration of the ordinary term, and was delivered in a state of preservation, without any trace of putridity.

12. *Length of Funis.*—A number of cords was carefully measured, but as your time would be unprofitably consumed by lengthy remarks and comparisons, I may simply state that, of the cords measured, the shortest was 15 inches, and the longest 53½ inches in length.

13. *Intestinal Hæmorrhage of the Child.*—In this case profuse intestinal hæmorrhage occurred on the third day, causing extreme exhaustion of the child. It was promptly arrested by administering one-drop doses of tinct. ferri sesquichlor. suspended in a little mucilage, and repeated at intervals of two or three hours.

14. *Head firmly Ossified—Third Position of Baudelocque.*—This was the lady's second labor. *The almost entire obliteration of fontanelles and sutures greatly embarrassed the diagnosis of the presentation.* I saw the case at 10 o'clock, A. M. Pains were recurring at intervals of six and eight minutes. Os uteri slightly open; presenting part beyond reach of the finger. At 12 M., the os was more dilated, thick and soft, with small bag of waters. At 3½ P. M. the soft parts were

well relaxed; os uteri well dilated. The waters were at this moment discharged by a pain. The head was found resting at the brim of the pelvis, but as I could perceive neither a fontanelle nor unequivocal suture, I was unable to determine the position of the head. The hand was now introduced into the vagina, when, by the contour of the head and the position of the ears, the vertex was found presenting at the pubis. The head was moved into the second vertex position, and strong uterine contractions having been provoked by the manipulation, the child descended rapidly, and, the pelvis being capacious, the delivery was accomplished in fifty minutes. When the head cleared the vulva, the vertex turned to the left thigh of mother, as in an original first position of vertex. The placenta followed in twenty-five minutes. The child was large, and the head remarkably ossified. The anterior fontanelle was almost entirely obliterated. The lady had gone a month beyond her expected delivery.

15. *Instrumental Labor.*—Instruments were resorted to twenty-eight times in the 1,000 cases, giving an average of $2\frac{4}{7}$ in 100, or 1 in $35\frac{5}{7}$, for the use of instruments.

In these cases the vectis was used three times, the forceps twenty-two times, and the perforator three times, giving an average employment of the vectis once in $333\frac{1}{3}$ cases; of forceps once in $45\frac{5}{11}$ cases; and of the perforator once in $333\frac{1}{3}$ cases.

The VECTIS was used in the three cases to effect a better coaptation of the head to the diameters of the pelvic canal.

In one case the PERFORATOR was employed to lessen the head, which was pitched in the iliac fossa. When I saw the case, (in consultation,) labor had been active for some hours, and the waters had been long discharged. The physician in charge had unsuccessfully endeavored to use the vectis and the forceps, but had not attempted version. The vagina was becoming hot and tender, and the child afforded no indications of being alive. Under these circumstances, the perforator was deemed the proper means for the accomplishing of the delivery, and it was effected readily in this way. The placenta was so firmly adherent as to require to be peeled from the uterine wall by the hand. In the other two cases, the promontory of the sacrum jutted so far into the upper strait as not to afford space for the passage of the unreduced head. Neither of the cases was a first labor. These cases occurred before the recent discussion of the propriety of version as a substitute for the crotchet; and as no information was obtained bearing upon the basis of said discussion, I can merely report them in this simple manner.

Analysis of Forceps Labors.

Number of Labor.....	1	2	5	6	7	8	10	12	Not Designated.
Number of Cases.....	13	2	1	1	1	1	1	1	1

The table is to be read thus: the forceps were used in 13 first labors; in 2 second labors; in 1 fifth labor, &c.

In four of the first labors, the forceps were used to deliver the fœtus on account of convulsions in the mother.

In the fifth labor case the pelvis was deformed to an extent sufficient to interfere with the delivery of the child. Seventeen months previously, I had attended the lady in her fourth labor, at which time her child was born alive by the natural powers. A deformity of the pelvis was observed at that time, but it was not sufficient to prevent, although it greatly retarded, delivery. But at the time of her fifth labor, the deformity had increased, and after waiting several hours for the unassisted pains to thrust down the child, I feared the consequences of a longer delay, and applied the forceps. The delay which I allowed was, however, too long for the safety of her soft parts, and I was grieved to see a urinary fistula as the consequence of that delay. I feel certain that the forceps had no agency in the production of the slough, and that I might possibly have saved the child and preserved the integrity of the vesico-vaginal septum, if I had used them an hour or two earlier in the labor.

The 6th, 7th, and 8th labor cases occurred in the same lady. The forceps were used in each case when the head was occupying the cavity of the pelvis. At this point in each labor, the pains became feeble and inefficient. The soft parts were perfectly prepared for delivery, and a longer waiting would have involved much anxiety and suffering for the patient.

The 10th and 12th labor cases happened in the same person. The pelvis was narrow, and unassisted delivery, with an ordinary child, would necessarily be very tedious. In the 10th labor, when the head descended to the straitened pass, it soon became apparent that much effort must be expended in forcing its way by the natural powers. The soft parts were well relaxed and lubricated, and I preferred the assistance of the forceps for present relief. The child was born alive, and well. Eighteen months after this, her 11th labor occurred. For

reasons mentioned under the head of "Mortality in Individua Instances," this case (the 11th labor) was not assisted, and the child was born dead. In the 12th labor I had recourse to the forceps, and the child was born alive and strong.

The reasons for the use of the forceps in the 22 cases may be succinctly stated thus:

Four times on account of eclampsia.

Once on account of deformed pelvis.

Twice on account of narrow pelvis.

Fifteen times to assist the passage of the head through the pelvis, because of delay in the second stage of labor.

I pray you to bear with me in occupying a portion of your time by offering some comments on the table, and some reflections on the use of forceps in the deliveries.

With those who entertain the opinion that first labors are of all others generally the most illy adapted to any interference from the accoucheur, it may excite the spirit of criticism to be told that, of the 22 forceps cases, 13 were primiparæ. But why are first labors, more than others, supposed to offer difficulties and objections to the use of forceps, and why are they generally expected to be longer in duration than others? Is it because of the undue rigidity of the soft parts, and their indisposition to relax? This cause cannot be assigned with equal plausibility for first labors in all the different years embraced within the child-bearing period of women. The books assign this as a cause for tedious labor when it occurs in those who marry late in life. If this be true, those who marry soon after maturity should be (*cæteris paribus*) exempt. We know that in first labors, at all ages, the first stage is frequently protracted and exhausting, and often produces an enfeebled and irritable womb in the second stage, thereby causing the uterine contractions to be peculiarly painful, and at the same time ineffective. This, I apprehend, is attributable to the fact that the process of labor, when induced for the first time, awakens new influences and sympathies in the system, and in this, as in the majority of new actions in the organs, the parts, thus newly affected, do not promptly obey the reflex impressions communicated to them. But whatever may be the cause for this tardy softening, which gives character, in the judgment of so many, to a first labor, I may ask at once the question, But if relaxation has already occurred, wherein does a first labor differ in indications from any other labor? Why, under these circumstances, are not the same means of relief equally as applicable in a first as in any other labor?

The great difference of opinions, as to what constitutes a necessity for the use of forceps, has beclouded the question, and nothing but a patient criticising of those opinions, and a careful examination of the results of practice, can clear up the subject to any one's mind. The fœtal and maternal mortality which some have reported in forceps deliveries, and their grave comments and cautions, have tended to create an unjustifiable prejudice against the instruments, and have, doubtless, deterred many from carefully studying their indications and their powers. The ordinary manner of reporting statistics conveys the idea that the deaths were caused by the forceps; than which nothing is more unjust. Examine any series, and see how many of the cases would have been fatal even if the forceps had not been employed; aye, when the forceps were the means upon which the only hope of life was based. Charge the forceps with such death! As well charge one with the death of a drowning person whom he endeavors to rescue, because he *could not* save the unfortunate. A false estimate has arisen from these statistics, and a fear of the forceps *per se* has been created.

Let any one examine the cases of those who are fearful of the forceps, and who permit the labor to linger for hours, in the hope of a natural delivery, or until symptoms of local lesion or vital exhaustion alarm them to a necessity for action, and he will read the history of many who most probably might have survived, if the forceps had been used before the incursion of such extreme circumstances. Can any practitioner believe with Ashwell, that the necessity for artificial assistance arises only when "the pains become weak, short, and inefficient, producing no effect on the head of the child, &c.; if the pulse, the countenance, and the general appearance of the woman are expressive of extreme debility and fatigue, a strong presumption is afforded that we have waited sufficiently long to unassisted nature; if, in addition to these symptoms, we have headache, mental inquietude, shivering and vomiting, a pulse of 120 or 130, furred tongue, a hot skin, great thirst, abdominal tenderness, heat and soreness in the vagina and os uteri, we feel assured our patient has approached to a state, from the evil consequences of which instrumental aid will alone deliver her?" If his practice conform to this doctrine, his record would indeed be a sad commentary upon the forceps as a means of saving life, or even abridging the unnecessary sufferings of a fellow-creature. It is not the forceps that makes the way for death, but it is the delay of the accoucheur, which has allowed the head to compress the soft parts at one point for hours, until inflammation is beginning in the maternal tissues, the exhausted uterus is in a state of

atony, and the crippled vitality of the structures is unable longer to preserve their integrity.

Even Dr. Collins seems to have had unnecessary fears in the use of the forceps, for he says: "Generally speaking, so long as the pulse remains good, the bowels and bladder act well, the soft parts remain free from severe pressure, and uterine action continues, so as to cause the presenting part to descend ever so slowly, the patient having no pain in the abdomen on pressure, or local distress, the child at the same time being alive, I am satisfied no attempts should be made to deliver with instruments, and that he who does so wantonly exposes both mother and child to danger." "A prudent use of instruments, in the practice of midwifery, is of great importance; but the necessity alone of freeing our patient from impending or present danger, should induce us to resort to them." Is the amount of suffering endured by the patient during the hours that the presenting part is descending "ever so slowly," and the ultimate evil results which frequently happen, to have no weight in the mind of the accoucheur? Is it judicious to let the struggle go on for hours, simply because nature may be able finally to complete the delivery, when there is good reason to apprehend that the triumph of nature will be achieved at the expense of the future health and well-being of the mother?

There is truth in the opinion of Mr. James Wilson, of Glasgow, that "deficient or deranged uterine action is the chief cause of the difficulties and delays in parturition; and that for one case of protracted labor where the pelvis or the position of the head is in fault, there will be twenty occasioned by deficient or imperfect uterine action."

I remember distinctly my feelings when I first used the forceps on a living frame. It was a first labor, and, after a tedious and harassing first stage, the head had descended to the perineum, and the vertex was pretty fairly applied to the arch of the pubis, the perineum was relaxed abundantly, and the vagina was quite moist, but the pains did not urge the head onward to delivery. The patient was *im*patient, but I was firm in my purpose not to interfere, because I had read that the forceps was a very dangerous instrument, and that they should not be used until "the ear is within reach for six hours." I looked at my watch again and again, but never did time roll its wheels so slowly. I was satisfied that, if it were possible to deliver her by applying my hands upon the sides of the head and making traction, that the delivery would be productive of no harm. This I could not do. What, thought I at last, are forceps but artificial

hands, and why not use *them*? I had carefully studied the application of the instrument, and resolved, in this case, to let circumstances, not hours, govern me. The parts concerned were fully prepared for delivery. I applied the forceps, and in a few minutes relieved the sufferer, with perfect safety to herself and child; and I appeal to any candid, unbiased mind to say, whether I did not a good and a perfectly justifiable deed.

We sometimes meet with cases in which the head is apparently ready to pass under the arch, but where it remains stationary, notwithstanding the womb continues to exert itself energetically. There is no malposition nor want of space, yet the strongest pains fail to effect its dislodgment. Cazeaux explains this difficulty by the head becoming so flexed as to destroy the leverage at the occipito-atlantoid articulation, and to allow the spine to be driven down upon the occiput, and thus to create the greatest possible flexion of the head, and prevent the operation of the pains in the direction of the axis of the lower strait. In such cases, (and they occur frequently in first labors,) when all things are ready, I have no hesitation in affirming that the forceps should be used, the ear and six-hour law "to the contrary notwithstanding."

I had commenced to arrange materials for the construction of a table calculated to exhibit the results in forceps operations, so far as the forceps were justly chargeable with those results. I designed to exclude all children who were known to be dead before delivery, all who gave evidence at birth of having been some time dead, all delivered dead by the forceps under circumstances which would have inevitably destroyed them independently of the instruments, &c.; and by this means would have attempted to place the forceps (on the side of the prosecution) "*rectus in curia.*" But the time for their full arrangement could not be spared from my daily duties, and the patience of attentive and kind friends has already been sufficiently tried. However inviting the field to me, the length already attained by this report admonishes me to pause.

I beg to add one more remark under this head. I seldom use anæsthetics, of late years, in my cases, and I carefully avoid them when about to perform any operation; for, in addition to many other cogent reasons which I might detail, I am impressed with the soundness of the views so pointedly uttered by Professor Meigs in his letter to Professor Simpson: "The best guide of the accoucheur is the reply of the patient to his interrogatory, 'Does it hurt you?' The patient's reply, 'Yes' or 'No,' is worth a thou-

sand dogmas and precepts, as to planes and axes, and curves of Carus. I cannot, therefore, deem myself justifiable in casting away my safest and most trustworthy diagnosis, for the questionable equivalent of ten minutes' exemption from a pain, which, even in this case, is a physiological pain."

16. *Time between Birth of Child and Delivery of the Placenta.*—This subject will be disposed of in a few words. I can give no table of time, because it is an invariable rule with me (if nothing forbid) to effect the discharge of the placenta whenever the tonic contraction of the uterus is firmly established, and the after-birth thereby thrown upon the os uteri. In my earlier years I pursued a different plan, while I thought a tardy expulsion of the placenta secured a comparative exemption from severe after-pains.

And now, gentlemen, fellow-members of the Medical and Chirurgical Faculty of Maryland, I have attempted to fulfill a duty which your kindness induced you to intrust to me as the chairman of your committee. The matter has expanded far beyond my anticipation, and subjects which should have been fully discussed have been necessarily treated in a cursory manner. I have, however, done what time and circumstances would allow. I have dared to hope that this may be a contribution (however humble) to the mass of American facts which is accumulating by the industry and care of our American physicians. If you should deem some of the sentiments to have been uttered too didactically, I can only ascribe the manner to a want of familiarity with writing for the public eye or speaking to the public ear; and, with a sincere desire to learn, can say, "*Si quid novisti rectius istis, candidus imperti.*" I sincerely hope some abler hand may be devoted to the elaboration of these subjects, as with physicians it is emphatically true, that "we must live and learn."

"*Nemo enim ad cognitionem veritatis magis propinquat, quam qui intelligit, etiamsi multum proficiat, semper sibi superesse quod quærat.*"

Bäel Fruit in Dysentery. By A. K. GARDNER, M.D., Author of the "Causes and Curative Treatment of Sterility," &c.

[Read before the Medico-Chirurgical College, July 28, 1859.]

I present this evening a specimen of a new vegetable astringent, perhaps now for the first time seen in this country, but which is very commonly and popularly used throughout the East Indies, where it is called the Bäel Fruit. It is, in fact, the fruit of a plant scientifi-

cally known as the *Ægle Marmelos*, and is classified under the order of the *Aurantiaciæ*. It is, as I learn from my friend, Captain McKenzie, late of the ship "Resolute," a shrub, growing about thirty feet high; for it must be remembered that all vegetation is magnified in size in the East Indies. The fruit, when ripe, is of the size of a large orange, and of a light-green color. The outside is as hard and thick as a cocoanut, requiring as much force to break it. The interior resembles the pulp of an orange, and is of a light-pink color. It is rarely eaten, but a tea is made by scraping out the soft interior and pouring boiling water upon it, which, when cool, forms a most delicious flavored drink, without the addition of sugar or any foreign ingredient, and especially grateful to the feverish thirst of those ill with febrile symptoms, not unfrequently attendant upon dysenteries. Drank thus, it has a slight acid flavor; it is also mucilaginous, being of a thick, syrupy consistency, and possesses an astringent character of scarcely perceptible nature. The fruit is dried for preservation, and, broken up, is placed in bottles, as here presented. The exquisite flavor reported to characterize the decoction of the fresh fruit is lost in drying, or at least as seen here; and we have a slightly acid and otherwise unobjectionable taste in the preparation. That its quality may be observed, I have made a small quantity, prepared for the inspection and taste of the college. The direction for its preparation is given as follows: Take one ounce of Bäel fruit and one pint of water; boil over a gentle fire until half is evaporated; strain, and give a wine-glassful whenever the patient is thirsty. The dose for children will vary from a tea-spoonful to a table-spoonful. An extract is also made of the consistency of tar, which has a slight empyreumatic flavor, not particularly agreeable. It is also dried in slices, being the same as the former preparation, in a different form.

It is not proposed to use this to the exclusion of other medicines, but as an adjuvant of considerable utility, not only as an astringent, but as a febrifuge. Should the dysentery depend upon or be associated with any scorbutic tendency, the citric acid in this fruit is well adapted, and it is perhaps to this quality that a great part of its much-vaunted success in Calcutta and the Indies generally is to be attributed.

In the four cases where I have myself administered it, I have been inclined to think well of its action, yet I have not fully made up my mind how great or exactly what are its qualities. As a simple astringent it is not so powerful, if the effect upon the mouth is any test, as hæmatoxylon or other barks and woods, infusions of which I have been

accustomed to prescribe to quench the often excessive thirst. Dr. Stephen H. Ward, Physician to the Dreadnought Seamen's Hospital, says, in a paper in the London *Lancet* of November 14, 1857, upon Dysentery, "Of all the vegetable astringents, I have found none equal to a strong decoction of the rind of the Bäel fruit of Bengal;" which testimony, he says, is corroborated by Drs. Royle, J. Hooker, Wight, Mr. R. Martin, and others—medical men whose experience enables them to speak to the subject. Dr. Hooker says in a letter, "I have given the Ægle, and seen it used with great effect." The decoction is now entered in the Dreadnought Pharmacopœia, as *Decoctum Æglis*, and is made by boiling down three ounces of the dried rind of the fruit, with a pint and a half of water to a pint. Of this an ounce and a half is given, with a few drops of laudanum, three times a day. Dr. Ward continues: "Although I have decidedly found this the most useful astringent in the purely chronic or milder forms of dysentery, still we must not be wedded to any one remedy, but ring the changes, if necessary, upon several."

NEW YORK, 141 East 13th Street.

On Legal Restrictions of the Sale of Poisons, more especially of Arsenic.
By BENJAMIN LEE, A.M., M.D.

The tardy course of American justice has not yet awarded his merited punishment to the wife-poisoner, Stephens; but his case, and others of recent occurrence, have not been without good results, in that they have begun to awaken the public mind to the necessity for more stringent laws than the paltry one which now disgraces the political code of the State of New York, for the restriction of the sale of poisons. A careful examination of reported cases in Europe, as well as in our own country, undertaken about the time of his trial, impressed me very deeply with the almost criminal neglect of our lawgivers in leaving the sale of all poisons, indeed, but more particularly of that most deadly one of which he availed himself, so utterly without safeguard.

A number of properties combine to make *arsenic* by far the most dangerous article in the whole category of poisonous substances.

1st. Its similarity to flour and to powdered white sugar renders it extremely liable to be used by mistake for those articles of food.

2d. Its color, its absence of color and of taste in solution, the small quantity (from two to three grains) which is necessary to produce

death, make its intentional introduction into articles of food comparatively easy, and liable to escape suspicion. Laudanum and other preparations of opium are dangerous poisons, but their taste, and, in the case of some of them, their color, would almost inevitably lead to a suspicion of the presence of some improper substance, wherever they may have been introduced.

3d. The universal knowledge of its deadly qualities makes it the ready agent of the ignorant for the purposes of revenge or of suicide; although the victim of despair ends his troubles perhaps almost as often by means of a stupefying draught of laudanum.

A single drop of nicotine is sufficient to produce almost instantaneous death; but Bridget in the kitchen and James in the pantry are not aware of the existence of this article, while they, and John the stable-boy, too, though he knows little beyond currying a horse and sweeping a stall, do, at least, know that arsenic will kill both mice and rats, and there are few minds whose powers of ratiocination are not equal to carrying the analogy a step or two further till they reach their fellows, and masters and mistresses. For one Dr. Palmer insidiously destroying his victims with strychnine, we have a hundred Stephens and Margaret Burkes.

4th. No poisonous substance is in daily use so commonly, and under so many different forms.

Its constant use as a means of ridding ourselves of vermin has already been alluded to. The ordinary fly-paper of the shops is saturated with a solution of cobalt, which is one of its natural oxides.

As a coloring matter, both yellow and green, as it is compounded with sulphur or copper, children may eat it in quantity in confectionery, or lick it off from toys; or the air of our chambers may be poisoned by the rich paper which adorns its walls, or by the noxious fumes which are exhaled from the flame of our hard and polished candles. Ladies may snuff it from the fur of their muffs, which it was intended to preserve; or if they are weak enough, and unfortunately the number of such is not small, may take it directly, both externally and internally, at the hands of those pestilential women who make it their business to tell fortunes, and "impart to the female cheek the combined tints of the lily and the rose."

5th. Its cheapness places it within the reach of every one, no matter how poor.

Experience proves that it is a not less dangerous enemy of human life, and ready agent of revenge or malice, than a knowledge of its properties would lead us to suppose.

It was computed that in England, in the course of two years, (1835–6,) 185 deaths were caused by it, being equal to those attributable to all the preparations of opium together, and more than those caused by all other poisons combined. And of the fearful extent to which the murderous use of this and other less well-known poisons has of late years increased in our country, no better proof is needed than the fearful list which might be culled from the columns of our daily journals during the past twelve months. Wives, husbands, children, parents, have alike been sacrificed with remorseless cruelty by its too easy means; while as I write, the *Daily Times* of this morning (Aug. 3) lies by me, containing a list of no less than six recent suicides by poisoning.

The necessity, then, for legislation upon the subject appears too patent to need further proof. Crime with us is generally owing not to the want of good laws, but to the failure to execute them. In this case, however, the statute-book itself is manifestly at fault. We do greatly need more stringent laws for the restriction of the sale of poisonous substances, and especially of arsenic.

To say that proper legal restrictions on the sale of poisons would be considered as infringing on personal liberty is, I think, giving the people of our State too little credit for common sense, and too much for foolish love of license, and the improbability of such a result is proved by two facts: First, there already exist in this State restrictions on the sale of gunpowder and of spoiled meats and vegetables, and on the use of steam-boilers, which no one ever dreams of considering oppressive, although they are certainly not more plainly indicated than those under consideration. Second, as I shall presently show, American people are living contentedly in other States, which have been blessed with a more enlightened and progressive legislature, and where, as a result, quite stringent regulations of this commerce are in force.

In order, however, that legislation may be effective and wise, it is necessary to see what other States and countries have enacted; what the wisdom of other legislatures has evolved upon the subject. And first, among the other States of the Confederation, Maine and New Hampshire agree in requiring the following poisonous substances, viz, arsenic, corrosive sublimate, nux vomica, strychnine, and prussic acid to be sold (except upon prescription of a physician) only under the following restrictions: 1st. The bottle or package must be furnished with a label bearing the name of the article, and the word "Poison" distinctly upon it. 2nd. The name of the purchaser, together with

the quantity bought, must be entered upon a register kept for that purpose. 3rd. None of these articles may be placed on, or within 200 rods of, a highway, for the purpose of killing noxious animals. The penalty in the former State may be $50, in the latter $100.

Michigan, Wisconsin, Oregon, Iowa, and Missouri also require labels for substances usually called poisonous, and the last-named State provides that they shall not be sold to minors or slaves. The penalty in the three first States may be $100.

The statutes of Massachusetts provide that any person selling arsenic, strychnine, corrosive sublimate, or prussic acid, except upon the written prescription of a physician, shall keep a record of, first, the date; second, the article sold; third, its amount; and fourth, the name of the purchaser. Penalty not more than $50. Any purchaser giving a fictitious name is liable to a fine not exceeding $50.

But the Ohio code is more complete on this subject than that of any other State in the Union.

It provides that no person shall sell or give away any poisonous substance, save upon the prescription of a physician, except under the following restrictions:

I. He shall register in a book kept for the purpose:

1st. The name, sex, and color of the purchaser.

2d. The quantity purchased.

3d. The purpose to which the purchaser intends applying it.

4th. The day and date on which the purchase was made.

5th. The name and residence of the person for whom it is purchased.

II. The bottle or package shall be labeled "Poison."

III. Such articles shall not be sold to minors.

IV. Further, with regard to arsenic alone, that no quantity of this substance, less than one pound, shall be sold, except upon prescription of a physician, until it shall have been mixed with soot or indigo, in the proportion of an ounce of soot or half an ounce of indigo to an ounce of arsenic.

The object of this last very valuable clause is to prevent the arsenic in small quantities, as it is often kept for the destruction of vermin, being mistaken, as it so frequently is with fatal results, for flour or powdered white sugar; and also to prevent its intentional introduction into articles of food, since the black or blue color of the mixture would at once lead to the suspicion of the presence of a foreign substance.

Now, as a counterpart to the enlightened legislation of Ohio, and

the careful precautions of Massachusetts, of Maine, and of New Hampshire, what law do we find for the protection of the citizens of the Empire State against the deadly arts of the poisoner, and the scarcely less dangerous mistakes of careless shop-boys and ignorant servants? Nothing but this meagre prohibition, which exists, as I have shown, in our youngest and wildest border States, and whose enactment is almost as recent as their admission:

"Any person who sells or delivers any poisonous substance, without having the word 'Poison' written or printed upon a label attached to the phial, box, or parcel in which the same is so sold or delivered; or who sells or delivers any tartar-emetic without having the true name thereof upon such a label, is guilty of a misdemeanor. Any person who violates this section, or whose partner, clerk, or servant does so, is liable in damages to any party injured in consequence thereof."—2 *Revised Statutes*, 877, § 25.

The utter inadequacy of this restriction to abate the evil scarcely needs comment. Leaving our own continent, let us see in what light European legislators have viewed the subject.

England, although not better provided than our own State with regulations restricting the sale of most poisons, has recognized the extreme danger of the unrestricted sale of so deadly and so commonly known a substance as arsenic, and provided by an Act of Parliament of June, 1851, that no arsenic should be sold, except upon the prescription of a physician, save under the following restrictions: The name and address of the purchaser are to be recorded, and the sale must be made in the presence of a witness. In addition, if a less quantity than 10 lbs. be sold, it must be colored. The penalty for the infraction of these laws shall not exceed £20.

In Ireland the laws on this subject are more stringent than in England itself, possibly because they were found more necessary. Statutes of that kingdom, which have been in force since the reign of George III., provide that, 1st, neither arsenic nor any of its preparations shall be kept in the same place with any other medicines; 2d, that if a less quantity than one pound is sold at any time, the quantity and the date shall be entered upon a register, to which the purchaser must sign his name. If not personally known to the seller, the signature must be certified by competent witnesses. This register is to be considered evidence after the death of the seller.

Great exertions have been made in England for the past ten years to procure a more stringent and comprehensive law on this important subject, and the subject has been several times before Parliament. It is probable that a very short time will elapse before sufficient meas-

ures will be taken to render the sale of these noxious articles much more difficult, and less dangerous to the public welfare.

It is, however, upon the Continent of Europe, where, to the shame of liberty, (or of those who abuse it,) be it said, all measures regarding the preservation of human life from danger, resulting from crime or from carelessness, are more carefully concerted and more rigorously enforced than in either England or America, that we find laws on this subject best fitted to diminish the evil; and of all the European States, Prussia and France are those whose provisions are most stringent and best devised. I give an abstract of the statutes of the latter country on this subject, as a type of those to be found in most of the continental codes.

These laws were passed upon the 29th of October, 1846, and were accompanied by a specification of articles considered to fall under the title of "Poisonous Substances." This specification was uselessly long and cumbersome, and was subsequently, on the 8th of July, 1850, so abbreviated and modified as to contain the following articles:

Hydrocyanic acid.
Poisonous vegetable alkalies and their salts.
Belladonna, extract and tincture of.
Cantharides—whole, in powder, or tincture.
Hemlock, extract and tincture of.
Chloroform.
Cyanide of mercury.
Cyanide of potassium.
Digitalis, extract and tincture of.
Tartar-emetic.
Arsenic and its preparations.
Hyoscyamus, extract and tincture of.
Nicotine.
Nitrate of mercury.
Opium and its preparations.
Phosphorus.
Ergot.
Stramonium, extract and tincture.
Corrosive sublimate.

The first provisions relate to the use of such poisonous substances on a large scale, and require any person, wishing trade in any one of them, to make a declaration to that effect before the mayor of the township in which such commerce is to be carried on, which declaration must be registered. The same requirement applies to persons

wishing to use them in manufacture. Certificates of such declaration are given to the declarant, and in case of removal these certificates must be renewed.

Such poisonous substances are to be delivered only to persons who can furnish such certificate, and only upon a written demand from them. All such sales must be immediately registered at the mayor's office.

All other sales of such substances are supposed to be for medicinal purposes, and are to be made only by apothecaries, and only upon the written prescription of a physician, surgeon, health officer, or licensed veterinary surgeon.

Prescriptions are required to be signed, dated, the size of the dose to be stated in letters, (that is, not in figures or symbols,) and the mode of administration to be specified.

These prescriptions must be immediately entered upon a register, kept for the purpose. They may be removed from the apothecary's keeping only with his seal appended to them, and an endorsement stating the day of the sale or delivery of the articles specified, and the corresponding register number.

This register is to be kept at least twenty years, and is open to the inspection of the authorities. The envelope in which the poisonous article is put up must be labeled with the name and place of business of the apothecary, and it must be stated whether the article be for external or internal use.

The following special restrictions are placed upon the sale and use of arsenic:

Arsenic and its compounds may be used for other than medicinal purposes, such as the preservation of animal substances, the destruction of vermin, &c., only when mixed with other substances, which shall prevent mistake and accident. Such mixtures are allowed to be sold only by apothecaries, and only to persons known to them and residing in the same township. The sale and employment of arsenic for the "liming" of grain, for embalming bodies, and for destroying insects, is forbidden.

All such poisonous substances must be carefully kept under lock and key.

Then follows a provision in which, or its kind, our own statute-books are painfully deficient. We make good laws, and leave them to the vigilance and honesty of our officers alone to be enforced. Now, great as is the vigilance and undoubted as is the honesty of all our executive functionaries, from Governor to policeman, experience

with us, as well as in France, proves the necessity of a spur and incentive other than the simple love of discharging well their duty, to drive officials into the strict enforcement of the laws.

The clause referred to provides that the Mayor or Police Commissioner of each township, with a physician appointed by the Prefect, shall, at stated intervals, visit the shops of apothecaries, and the establishments where these substances are made or sold, examine the registers, and assure themselves by any other means that they may think necessary, that these ordinances are strictly complied with.

In the department of Les Landes, in France, it is additionally required by an edict of the Prefect that all poisonous substances shall have *red* labels attached to them when sold; the labels for other substances being *white*.

It would be difficult to imagine a more thorough or effectual system of laws upon the subject than these of the French code; and with slight alterations suggested by the difference of locality and form of government, they might almost be adopted bodily into our own statute-book. The main features of such an act should be as follows:

1st. A specification of articles recognized as poisonous by the law; this would require to be much more complete than those generally given in the statutes of other States, but not necessarily so full as the list of the French code above given.

2d. Manufacturers of, and wholesale dealers in such articles, and persons using them in manufacture, should be required to file a declaration of such purpose of sale or manufacture, and certificates of declaration should be necessary to trade. Each sale should be publicly registered.

3d. None but apothecaries should be allowed to retail such articles.

4th. Such articles should be delivered only upon the prescription of a regularly educated physician, who has been licensed according to law.

5th. Such prescriptions should be registered with all the concomitant facts necessary to make said registration available testimony in case of need.

6th. The bottle or envelope containing the article should be labeled with a label of a peculiar color, reserved by law for such articles, distinctly marked "Poison," with the name of the article. The bottles might be so made (as they are said to have been introduced in England recently) that the contents can only escape by drops. The label should state whether the article is for external or internal use.

7th. Arsenic in greater quantities than medicinal should be so mixed

with colored substances as to prevent its being mistaken for articles in daily household use.

8th. It should not be sold to minors, nor to unknown and irresponsible parties.

9th. A competent committee should be appointed, whose duty it should be to visit semi-annually all places where such articles are sold or manufactured, and assure themselves that the laws are complied with.

10th. The penalty for the infraction of any of these restrictions should be not less than $200.

I have thus given, of course, only an outline of a system of laws on this important subject, the details of which are to be filled up, and subject to modifications and amendments. But I am satisfied that the passage of an act founded on similar principles would be a saving to the State of considerable expenditures, as well as an immense protection to human life.

2 West 36th Street.

Accidents arising from the Employment of Arsenical Greens.

Dr. Beaugrand has presented a report on this subject to the Committee on Hygiene in the fifth arrondissement of France, the substance of which we shall embody in this paper.

These greens are: *Scheele's green*, discovered, during the last century, by the distinguished chemist of that name, prepared by precipitation from a salt of copper with an alkaline arsenite; and *Schweinfurth green*, discovered at Schweinfurth in 1814, by Rulz and Sattler, although not scientifically known in France until 1829, through the notes of Braconot and Liebig; prepared by mixing boiling solutions of bibaric acetate of copper and arsenious acid. They are employed in the manufacture of paper-hangings, on account of their beautiful color.

They are capable of producing poisonous effects in three ways: 1. When they are brought directly in contact with the digestive organs; 2. When their emanations or powders are introduced into the lungs; 3. By contact with the skin.

1. The effects of arsenical greens following their introduction into the digestive organs. These are similar to those of other arsenical compounds, as has been shown by the following: The excellent report of Chevallier and Duchesne, (*Ann. d'Hygiène*, 2d Series, ii., 1854,) in

which the authors have collected various cases of poisoning from substances colored with arsenical greens, such as bonbons, &c.; the report of Dr. Martini, of Wurzen, on the poisoning of a large number of children of that village who had eaten small figures of gingerbread thus colored, (*Ver. der Zeitschr.*, viii., 2, 1850, and *Schmidt's Jahrb.*, lxxi., 357;) an observation of Dr. Schultz-Henke on a child poisoned from having sucked a piece of glass thus colored, (*Schmidt's Jahrb.*, lxxxiii., 173;) the facts cited at different times by Dr. A. S. Taylor, and his repeated complaints on the silence of English legislation as regards the sale of poisons, (*Brit. and For. Med.-Chir. Rev.*, xviii., 551, 1844, and *Guy's Hospital Rep.*, vii., 1851.) Dr. Meurer has also made a series of experiments on living animals. Schweinfurth green, in the dose of 10, and even 5 grains, has poisoned rabbits in the space of six hours; and the arsenic has been detected in the liver, while no traces of copper were found. A dog, to whom first 10 and then 20 grains were given, was saved by vomiting. Another dog, not so robust, died after the administration of 5 grains, and no arsenic was detected in the liver. The same results followed the use of Scheele's green. Some comparative experiments being made with a salt of lead—the chromate—a rabbit took each morning, for three days, 10 grains, without any symptoms except progressive wasting away, dying on the third day.

According to Meurer, the arsenites of copper are speedily fatal, in consequence of their rapid decomposition in the stomach, setting free the arsenic. The copper, instead of aggravating the poisoning, rather tends to diminish the effects, on account of its emetic properties. Whenever a cure has been effected, it has been, in most cases, owing to the small amount of the poison ingested; or, in some, by the emesis which so speedily took place.

2. Effects produced by emanations or arsenical powders proceeding from paintings or paper-hangings in rooms.

Attention was first directed to this, in 1839, by Gmelin. Some years afterwards, a very distinguished Prussian physician, Basedow, made it the subject of two very remarkable papers. In the first, he reported several examples of veritable poisoning observed in persons who occupied chambers painted or papered with arsenical green: in the second, he examined the results of an investigation instituted in Prussia, in consequence of his first observations; and the numerous and singularly confirmative facts obtained in this investigation justified the measures adopted by the Prussian Government, in prosecuting the employment of this poisonous color in the decorations of rooms. Analogous observations had been made in Sweden by Carlson and

Malmsten; and, shortly after their publication, a report of the College of Health at Stockholm interdicted the use of arsenic green for painting and paper-hangings.

Lately, other facts have been published in other parts of Germany; and thus, to those of Basedow may be added those of Hoffmann and Acheron, and of Birkmeyer of Nuremberg, one of the editors of the *Journal of Canstatt*, who observed some accidents in his own family from this cause.

In England, where such greens are extensively used in paper-hangings, Dr. Hinds, of Birmingham, relates three cases under his own observation, (*Med. Times and Gaz.*, 1857, i., 177 and 250;) Halley publishes his own case, (*Ibid.*, Jan. 16, 1858;) and Whitehead announces a case, (*Brit. Med. Journ.*, Sept. 25, 1858.)

The phenomena observed in the cases reported are: anorexia, sometimes vomiting and diarrhœa; most frequently very acute irritation of the eyes, nasal fossæ, the throat and bronchia, with hoarseness, dry cough; eruptions of different kinds; erratic pains, (pseudo-rheumatism,) vertigo; and, in addition to these, debility, incomplete paralysis of movement, (paresia,) affecting particularly the lower extremities, various injuries to the spinal cord, an earthy discoloration of the skin, marasmus, &c. These symptoms resist, with great pertinacity, treatment; being allayed and reproduced according to different circumstances, and only yielding completely when the patients gave up their rooms or changed their decorations. Those most easily affected are young children, then females, and then persons who live mostly confined within their houses.

How do such emanations produce poisoning? There are two theories: *A*, the poisonous effect is produced by gaseous emanations (probably arseniureted hydrogen) proceeding from chemical decomposition; *B*, it arises from the absorption, in the digestive and respiratory apparatus, of pulverulent particles detached from the pigment by efflorescence.

The first hypothesis was originated by Gmelin, and supported by Basedow and some others, who detected the odor of arseniureted hydrogen or cacodyle in apartments where the inhabitants had been affected. The conditions favorable to the decomposition are dampness of walls, the action of respiration on the air in the room, the different exhalations given off in occupied rooms, the odors from the kitchen, and certain meteorological influences.

Kramer, of Germany, has combated this theory, by the aid of chemical experiments. He failed to detect arsenic by passing very large quantities of air, that had traversed a vessel containing arsenical

greens mixed with paste, through proper detective solutions. The same failure resulted in the substitution of hydrogen, or of the air of a chamber painted with the poisonous color: the reagents detected nothing, and there was no alliaceous odor. The experiments of Phillips and F. A. Abel were also negative. These experiments are, however, wanting, in that the air of a room, in which poisoning *had been produced*, was not experimented upon.

The other hypothesis, which attributes the poisoning to pulverulent particles detached from walls or papers, is very probable, especially when it is recollected that, in the countries where these accidents have occurred, wall painting has given place to the use of paste, and that the coloring matter is so thickly laid on as to give a velvety appearance, and that glazing is not employed. This opinion has been specially supported by Hoffmann and Reimer, and Kleist, a Prussian pharmaceutist, who admits the two modes of poisoning, remarking the absence of glazing in the ordinary employment of the beautiful green color—(*Farbe der Hoffnung*)—which the Germans, and particularly the poorest classes, apply not only to the decoration of their chambers, but also to a number of articles and utensils in domestic use. Kleist has seen, in chambers thus decorated, the furniture covered with a very fine green dust. Phillips also holds to this theory. Let us also remark that, in some cases, the state of efflorescence of the color has been noted, and that the influence of this dust has been made manifest through accidents to workmen who have scraped the walls of which we speak; and, recently in Paris, with costumers who were making a ball-dress colored green by the arsenite of copper, which became detached in a pulverulent form.

3. *Local Effects of Arsenical Greens.*—Vesicular and pustular eruptions, followed sometimes by very painful ulcerations; erythematous swellings, &c., are produced on the skin, when brought into contact with the arsenites of copper. These phenomena, purely local, observed on workmen who prepare arsenical green, and on those who dress and glaze colored papers by means of this substance, were first described by Dr. Blandlet in 1845. This treatise, containing the principal facts concerning these eruptions, was followed by Chevallier's paper in the "Annales d'Hygiène," (1847,) in which it was shown that the accidents noticed by Blandlet were real, although probably exaggerated. These researches were overlooked or forgotten, when M. Follin published a very complete and detailed account of the different affections observed in a workman occupied in the preparation of Schweinfurth green. This gave occasion to Imbert Gourbeyre to

show, with the aid of numerous cases quoted from French and other physicians, that eruptive affections are not rare in arsenical poisoning, and that they have been known for a long time.

Blandlet, however, did not pretend that he had first noticed these affections, and he says in his paper, "*It is not rare* to see coryza and expectoration at the commencement of internal poisoning; swelling of the nose and lips was observed in the assassin, Souffard; *papular and vesicular eruption* is common both in internal and external poisoning." Dr. Brochmann (1859) has written of the eruptions that show themselves in workmen employed in the roasting of the arsenical ores of the Harz Mountains; and Dr. De Pietra-Santa has communicated a paper to the Academy of Sciences on the effects of green and other painted papers.

In some workshops of artificial-flower manufacturers, there are employed, instead of artificial pieces in paper or cloth, the hulls of natural grains dried. These are soaked in green coloring material, which is often Schweinfurth green prepared with oil of turpentine as for ordinary painting; they are mounted and arranged, by means of silk thread, on flexible brass wires, in order to form waving grapes, intended as an ornament for ladies' bonnets. These articles, thus colored, being employed by the workmen when they are yet moist or covered with a powder of the same green sifted on them, communicate a deposit of the arsenical color, more or less thick, on the fingers, which is then continually brought into contact with the face, neck, &c., and on these parts the eruptions appear. The soakers *(les trempeurs)* are subjected to the same influences, and the contact of the fingers with the genitals, in urinating, produces even there the same eruptions.

The author cites a number of cases illustrating these effects, and says that the workmen are so indisposed to submit to such inconveniences, that they abandon the business after a few weeks' or months' trial, so that the *personnel* of such an establishment is always changing.

The important question now comes up, Are not persons wearing such decorations liable to similar affections? Beaugrand failed to produce any unpleasant effects in his own case, by keeping on his forearm one of these grapes for three days, although it was moistened every morning; but the coloring matter had been prepared with oil of turpentine, which prevented its removal by water.

The arsenites of copper seem to act on the skin in a manner peculiar to them, and to produce eruptions analogous in appearance to the specific eruptions of syphilis. In this way they do not act as poisons, but as local irritants.—(*Gaz. des Hôpitaux.*) L. H. S.

Arsenical Paper-Hangings.

As an appendix to the article on Arsenical Greens, from Dr. Beaugrand's report, we ask attention to some interesting cases gleaned from the columns of the *Medical Times and Gazette.* These will show how dangerous is the use of arsenical greens in the manufacture of paper-hangings, notwithstanding the silly assertions of those who declare that no injury can result to the health of persons occupying rooms decorated in this way, because "no *fumes* of arsenic would be given off even in a temperature of 140° Fahrenheit." The blunder arises from the notion that the mischief is produced by arsenical fumes, which are only given off at about 400°, whereas the danger proceeds from the inhalation of the dust, given off from the paper-hangings, into the lungs of the sufferers. It is a matter, also, of small moment whether the arsenic enter the lungs in the condition of vapor or as a solid body; the main object of inquiry is whether paper-hangings, on which arsenical colors are employed, are injurious to health.

Dr. Alfred Taylor (*Med. Times and Gazette,* Jan. 1, 1859) mentions the case of a gentleman, whose library walls were covered with arsenical-green paper, suffering "for some time from chronic inflammation of the eyes, especially affecting the conjunctiva of the eyelids." Suspecting that the affection was due to the pigment, he had the paper removed, when the inflammation disappeared, but afterwards on dusting some books, in a book-case belonging to the room, on which the dust had settled for two or three years, the disease returned. A specimen of this dust, weighing one grain and a half, being removed from the books by a feather, was of an olive-green color, "and under the microscope presented the appearance of fibres, with numerous particles of various colors, chiefly of a grayish-black. By Reinsch's process a portion of the dust yielded a deposit of arsenic." A similar examination of some dust from the cases of an instrument-maker, whose shop was covered with unglazed arsenical paper, amounting to 450 grains, detected the presence also of arsenic. "One hundred and fifty grains of this dust were examined by Reinsch's process; and enough metallic arsenic was obtained from it to coat about ten square inches of copper foil, in addition to a piece of copper gauze." These facts justify the writer in the statement that the air of a room whose walls are covered with arsenical paper-hangings "is liable to be charged with the fine dust of the poisonous aceto-arsenite of copper."

W. B. Kesterven (*Medical Times,* Jan 8, 1859) mentions a case which corroborates what Taylor has advanced. A lady, for some ten

or twelve years, had frequently suffered from severe attacks of intestinal derangement; but during the last six months she has been free from them. The room had previously been papered with arsenical paper-hangings, which furnished metallic arsenic under Reinsch's process; but these had been removed, and those of another color were substituted in their stead, and the presumption is fair that the poisonous dust from the walls was the cause of the sickness.

Dr. Rooke (*Medical Times*, Jan. 29, 1859) was induced to examine the green wall-paper of his dining-room, "as one member of the household had, for some months since it was put up, been constantly suffering from obscure gastro-intestinal symptoms, not referable to errors of diet, or any hitherto known cause. On collecting some of the dust from the tops of the picture-frames, ledge of doorway, etc., (to the amount of between two and three grains,) and submitting this to Reinsch's test, a piece of fine copper gauze, about an inch square, became covered by an iron-gray metallic coating after some twenty minutes boiling, and the metallic crust was converted into crystals of arsenious acid in the usual manner, and gave the ordinary reactions."

Dr. J. J. Wright (*Medical Times*, Feb. 12, 1859) directs attention to the injurious effects of such paper in his own library, producing attacks of colic, chronic sore throat, tenderness about the margin of the eyelids, &c. The paper in this case was partially glazed, but still not sufficiently so to prevent the detachment of the pigment in a pulverulent form. The paper-hangers always complain, when obliged to use such paper, "of redness and watering of the eyes, *stuffiness* and irritation of nose, soreness of the lips, and an uncomfortable feeling about the throat."

In some green flock paper examined by Taylor, he found "more arsenic in a square inch of the green color than is commonly found in the whole of the liver of a person that has died from that poison."

It is not improbable that every practitioner in a city will have some fact, treasured up in his own experience, which will corroborate those given above. The question is whether, with such knowledge in our possession, we shall quietly submit to the poisoning of families by the use of arsenical paper-hangings, or use every exertion to inform the public on this subject, and, if possible, provoke some legislation in the way of prohibiting their use. It seems to us that the latter is the course to be adopted by the medical profession, as being *ex officio* health officers of every community. If the *sale* of poisons should be regulated by law, then surely the *use* of poisons in any way so as to

endanger health should be prohibited. We should be pleased if any member of the profession, possessed of information on the subject of arsenical paper-hangings and their injurious effects, would communicate this to the public, so that the interest may be kept alive until our legislators shall prohibit the use of arsenic greens for any purpose where they can produce danger. L. H. S.

Case of Strangulated Congenital Inguinal Hernia—Operation—Removal of large Mass of Omentum—Recovery. By Reed B. Bontecou, Troy, N. Y.

January 26, 1858, 10 P. M.—Was called to see W. R—, a lad aged thirteen years; found him lying on his back in bed, with trunk bent forward, legs and thighs flexed like one with peritonitis; general tenderness of the abdomen; scrotum distended to the size of a large orange, of a regular oval shape, red, shining, and painful to the touch; the swelling extending into the inguinal canal.

The history of the case was given to me by his parents, as follows: He had a congenital hernia of the left side, which occupied usually the scrotum. On the 23d inst. he went a mile from the city, and while there exercising on his skates, experienced a severe pain in the hernia, accompanied with nausea and faintness; he laid down on the ground and slept some hours, uncovered, and in an exposed situation. At evening he returned home and went to bed, and remained without much complaint, until I saw him. The boy had not had any passage from his bowels since the 22d inst.; and oil which was given on the day before I saw him had been rejected; in fact, vomiting had continued occasionally from the 23d. The tumor was very tender, and efforts at taxis, which were gently made, were painful and unsuccessful. Prescribed Opii pulv. 3 grs., every three or four hours, and cold wet applications to the inflamed tumor.

27th, 8½ A. M.—Patient complained of pain all over the bowels, which were distended; had stercoraceous vomiting during the whole night, and probably rejected the powders. The tumor was larger, more livid, and œdematous; increased tenderness in the hernia and left iliac region. An injection had been administered without success; urine had been passed. 10 A. M.—The patient was placed on the table, and put under the influence of chloroform, by Dr. Brinsmade, Drs. Seymour, Lewis, and Whiton assisting. I carefully cut through the envelopes, which were tightly drawn over the mass, and opened

the tunica vaginalis, which was filled with a mass of omentum, black, with infiltrated and coagulated blood of the size of the fist, and a portion of intestine several inches in length, all adherent to the sac by recent adhesions; these were detached by the finger and handle of the scalpel, and some clots of blood removed. The stricture was found to be in the neck of the sac, and was relieved by several incisions. The intestine was then drawn down, and although rough and dark colored, was deemed sufficiently good to return, which was carefully done. The omentum was so much broken up by infiltrated clots as to render sloughing highly probable; a needle armed with strong double ligature was therefore passed through it near the stricture, and the mass thus included in two portions was removed by the knife, the ligatures were made fast outside, and the wound closed with sutures and straps of adhesive plaster.

10, P. M.—The patient has been kept under the influence of opium all day; has no pain ; vomiting had occurred several times during the day, but was no longer stercoraceous; the 3 gr. powders of opium to be continued every six hours.

28th, 9 A. M.—Pupils contracted; pulse 130; respirations slow; expresses himself comfortable; passed urine and voided some flatus twice since last visit; no tympanites or tenderness of the abdomen; ordered wet cloths to the wound, to take 3 grs. of opium every five hours, and to retain the recumbent posture. 8, P. M.—No change; patient continuing comfortable; opii pulv. 3 grs. every six hours.

29th, 9 A. M.—Is considerably influenced by the opium, as evidenced by the contracted pupil and slow respiration; pulse, however, keeps up, rating 120 a minute, and some little tenderness from the wound to the left iliac region; continue same treatment.

8, P. M.—Patient somewhat narcotized, but easily roused and rational; pulse 130; respirations 14; sweating; has passed no urine, and feels no desire, and there is no dullness over the pubis; abdomen more distended and tympanitic than before. Opii pulv. 2 grs. every six hours; warm fomentations, sprinkled with turpentine, to be applied to the bowels.

30th, 10 A. M.—Patient appears comfortable; has vomited some greenish matter; pulse 132; skin moist; abdomen much distended and tympanitic; but little pain complained of. The wound is discharging a little, and looks well; has passed urine freely, night and morning, but no evacuation whatever from the bowels. Prescribed infusion of senna with aromatics, and ordered lard and turpentine rubbed on the bowels, to be followed by warm fomentations. The opium to be dis-

continued till further notice. 8 P. M.—The rectum has been emptied by injections, and some flatus passed, but no evacuation of the upper bowels yet; no tenderness, and much less distention of the bowels.

31st, 10 A. M.—General appearance of patient good; some gaseous distention, of the belly, with but little tenderness, however, and that confined to the left iliac region; his tongue is cleaning off, and wound discharging healthy pus; pulse 77; injection to be administered, and infusion of senna and aromatics continued.

6 P. M.—Pulse 75; abdomen soft, and not tender; has had an evacuation, after the use of several injections; skin moist; general condition good.

Feb. 4th.—The boy has since last notice been very comfortable, and has retained the dorsal decubitus. His bowels have been voluntarily moved daily. The wound continues discharging, and is nearly healed. The scrotum and wound are supported by adhesive plaster, and over all a poultice.

6th.—His bowels were moved this morning three times from oil, which was prescribed yesterday; wound healed except at the ligatures, which are still firm.

10th.—Patient feels well enough to go about; the ligatures came away with the dressings, and the wound is closed. Straps applied to scrotum as support.

12th.—The patient can walk well; there is no descent of the intestine; the stump of omentum can be felt obliterating the ring. Discharged cured.

Use of Sulphate of Copper and Opium in Diarrhœa, occasioned by Dentition. By Dr. EISENMANN, of Würzburg.

During first dentition children are frequently affected with diarrhœa. It is often so slight that parents do not regard it as a disease, and leave it to the action of nature only; at other times, however, especially when dentition coincides with weaning, the evacuations are copious, and the diarrhœa passes into the chronic state. Then the patient becomes remarkably thin, and nervous symptoms of all kinds arise; sometimes that morbid condition is developed which has been confounded with acute hydrocephalus, but which Marshall Hall has designated by the name of *hydrocephaloid.* When it has passed into the chronic state this diarrhœa is frequently fatal, the little patients dying in marasmus.

I have found a medicament, the use of which has been attended by extremely favorable results in a great number of cases of these diarrhœas.

In the autumn of 1838 Dr. Rœssel, Bavarian Aide-Major, then in garrison at the fort of Oberhaus, consulted me about a child in a low state from a diarrhœa of dentition. Sophie Krick was of delicate health; she commenced to cut her teeth with her second year. After the appearance of the first teeth she was taken with a diarrhœa, to which the parents at first paid no attention; but soon afterwards the evacuations became serious, persisted for three months, and so reduced the child that only skin and bones remained. She was continually in a state of *coma vigil;* pulse very frequent, and hardly perceptible; no appetite, and constant thirst; in a word, her condition appeared desperate. Upon my proposition, Dr. Rœssel prescribed the sulphate of copper, associated with opium, in the following proportions:

Sulphate of copper,	gr. $\frac{1}{4}$.
Opium,	$\frac{1}{12}$.
Sugar,	q. s.

Recommending three powders a day to be given.

The first four days there was a marked amendment, the evacuations became less frequent and less serious, and three days after the little patient commenced to convalesce. The diarrhœa ceased, the appetite returned, and digestion was re-established; the strength and the normal size of the body sensibly increased, and four weeks after the cure was completed. This case created a considerable sensation in the neighborbood, and soon after Dr. Rœssel had two similar cases to treat. He called me in consultation, and we agreed to employ the same means, and the results were equally favorable in the two cases.

In 1840 I had an opportunity to observe a fourth case of this diarrhœa at the fort of Oberhaus. The little patient presented the same symptoms as those I have just mentioned, with this difference, that vomiting still persisted, and that the disease had only continued for fifteen days. The emaciation, however, was very marked, the abdomen tumid, and sensitive to pressure; appetite bad, and great thirst; the respiration was accelerated, and there were mucous râles, without any other symptom of a pulmonary lesion; countenance pale, and a little tumefied, the expression indicating apathy. I prescribed the sulphate of copper with opium, according to the formula given above, and twelve of these powders brought about in four days convalescence, which was very short.—*Bulletin Générale de Thérapeutique.* D.

Monthly Summary of Cotemporary Medical Journalism. By O. C. Gibbs, M.D., Frewsburg, N. Y.

Under this head, we propose to give a condensed idea of the more important original papers that appear in the regular issues of cotemporary medical journals, with such comments as are consistent with the requisite brevity. As we by no means see all of the journal issues, and would not have time to read them attentively even if we did, it will not be expected that our *summary* will embrace the prevailing idea of all, or even a majority of important papers that are issuing constantly from the medical periodical press. We shall, however, attempt to give a truthful *mirror* of such *practical* progress in the healing art as falls under our observation.

Inversion of the Uterus reduced on the Sixteenth Day.—In the July number of the *Lancet and Observer*, George Mendenhall, M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical College of Ohio, reports a case of inversion of the uterus, successfully reduced on the sixteenth day after the accident. Dr. Mendenhall says: "The right hand was introduced, without very great difficulty, into the vagina, the body of the uterus grasped and carried upward in a line corresponding with the axis of the pelvis, and steady pressure made in that direction, so as to put the vagina and utero-vaginal connection on the stretch. The left hand was placed on the abdomen, and the fingers against the outer edges of that portion of the uterus looking towards the cavity of the abdomen, (which could be distinguished plainly,) and counter-pressure was made, for the double purpose of preventing injury to the utero-vaginal connections, and also for the purpose of facilitating the turning of the os and neck of the uterus over the body and fundus."

"The turn of the uterus commenced at the neck, and was continued along the body, until it involved the fundus."

The result of the last year's practice has been one of encouragement and hope for those unfortunate females afflicted with uterine inversion. Dr. White, of Buffalo, has successfully accomplished reduction after six months. (See *American Journal of Medical Sciences* for July, 1858.) Dr. Potter, of Geneva, N. Y., has reduced two cases, one of fifteen months' duration. (See *Chicago Medical Journal* for June, 1859.) Dr. W. Tyler Smith, of London, has successfully accomplished reduction after nearly twelve years. (See *Transactions of the Royal Medico-Chirurgical Society of London*, for 1858.) Hereafter, it is to be hoped that no woman will be abandoned to her fate, of however long standing may be the inversion.

Ununited Fracture treated with Silver Ligatures.—Professor E. S. Cooper, M.D., of San Francisco, reports, in the July number of the *Lancet and Observer*, a case of ununited fracture of the upper third of the femur, of two years' standing, successfully treated with silver ligatures. An incision, six inches in length, was made, and the soft parts dissected away, so as to freely expose the seat of fracture. The broken surfaces were placed in adaptation, and three sutures applied. A roll of lint four inches long was laid in the wound, to keep it fully open; after which, a roller was applied and a splint put on. The flesh wound was kept from healing for three months, when it was ascertained that bony union had taken place, when the wires were removed and the soft parts permitted to heal.

This operation seems to us much more severe, painful, and, under some circumstances, hazardous, than the sub-cutaneous puncture, proposed and so successfully practiced by Prof. Brainard, of Chicago. We should not have called attention to Prof. Cooper's case, were it not for quoting a practical remark in regard to keeping wounds open in similar cases. In the operation of *resection*, he says: "And I venture the assertion that there will be one case in every five where the wound is closed with the view of attempting to obtain healing by first intention, after resection, in which trouble will arise in consequence of burrowing of matter, and it is well known that patients not unfrequently die from this cause; whereas, in the method above recommended, it will hardly ever occur, and at no time does the patient suffer any inconvenience from the wound being open; and further, there are frequently small pieces of bone thrown off during the convalescence of these patients, and which, if discharged early, will cause little inconvenience, but which, if pent up in the limb, and compelled to remain a source of irritation, may perpetuate the disease for an indefinite length of time. Many limbs are sacrificed in this way which might be saved by keeping the *bones in view* until they become completely covered with healthy granulation, which indicates that no further danger of exfoliation is to be apprehended."

While we deprecate the burrowing of matter under muscles, we confess to not exactly liking Prof. Cooper's advice. Exposing bones to view for several months, thus subjecting them to the action of the air and unhealthy discharges, would seem to us rather to favor exfoliation than otherwise, saying nothing of the pain and annoyance to the patient.

Cephalic Version.—In the same number of the journal above referred to, Dr. Bonner, of Cincinnati, reports a successful case of cephalic version, and somewhat warmly advocates its general adoption in cases of

shoulder presentation. We notice Dr. Bonner's paper here for the purpose of remarking upon the following quotation: "I believe all authors not only oppose, but condemn, an attempt at cephalic version in shoulder and back presentations." This statement is not altogether true. Velpeau advocates it under certain circumstances, which circumstances are well pointed out. Leroy and Jöerg prefer it to podalic version; Ramsbotham, Dubois, and Smellie prefer it to turning by the feet, in a few specified cases. Prof. M. B. Wright, of Cincinnati, advocates it in a prize essay, published in the Transactions of the Ohio State Medical Society. Dr. H. G. Carey, of Dayton, Ohio, has an able article upon the subject in the AMERICAN MEDICAL MONTHLY, for 1856, page 87; and Dr. J. H. Brower, of Lawrenceburgh, Ind., has another in the *Chicago Medical Journal*, page 11, for the present year. In these two last-mentioned essays, the literature of the subject is somewhat fully examined.

Reduction of Hip and Shoulder Dislocations.—In the *Peninsular and Independent* for July, Prof. Moses Gunn, M.D., of Detroit, publishes a paper, illustrative of his views in regard to luxations and reductions of hip and shoulder joints. It is doubtless known to our readers that Prof. Gunn claims to have taught the manner of reduction known as Reid's method more than a year anterior to the publication of Dr. Reid's paper in the Transactions of the Medical Society of the State of New York. This point, however, he does not urge in this paper, but industriously labors to establish more important and practical facts.

Dr. Gunn is of the opinion that muscular contraction is not the opposing force that resists reduction, and upon this point he differs from Dr. Reid and most other surgeons. He, however, reports several carefully-arranged experiments, for which we must refer the reader to the paper itself, which seem to establish the correctness of his opinion. He says, "The principle I would seek to establish is this: that, in luxations of the hip and shoulder, *the untorn portion of the capsular ligament*, by binding down the head of the dislocated bone, prevents its ready return over the edge of the cavity to its place in the socket; and that this return can be easily effected by putting the limb in such a position as will effectually approximate the two points of attachment of that portion of the ligament which remains untorn."

We have not space for even a synopsis of Dr. Gunn's experiments, the practical results being sufficient for our purpose. He establishes the following *general* rule: "In *all* dislocations, place the limb in just *the position which characterized it at the moment of escape*, and reduction

will be easily effected." He subjoins the following *special* rules: "In the luxation upon the dorsum ilii, the patient lying on his back, carry the limb across its fellow at a point corresponding with the union of the middle with the upper third, rotate inward, and, the pelvis being fixed by an assistant, the head may now be readily drawn into its place.

"In the dislocation into the obturator foramen, when extension is being made in the usual way at the upper part of the thigh, the limb should be *abducted* instead of *adducted*, as universally directed; abduction conforms to the general rule laid down above, and relaxes the upper portion of the ligament.

"In the forward dislocation upon the pubis, while extension and counter-extension are being made in the usual manner, the limb should be rotated externally; this relaxes the posterior and untorn portion of the ligament.

"In the backward luxation into the sciatic notch, the limb should be carried across the opposite groin, and rotated internally, previous to an extension being made.

"In the luxation of the humeral head into the axilla, the arm should be drawn upward by the side of the head, as directed in my first article.

"In the forward dislocation upon the thorax, the arm should be rotated externally before extension is attempted.

"In the luxation backward upon the dorsum scapulæ, the arm should be rotated internally before extension is commenced."

Death in Utero.—In the same number of the *Peninsular and Independent*, Dr. A. O. Potter, of Mantorville, Minn., reports a case of death of a fœtus in utero, by ligation of the neck by the umbilical cord, which was four times wound around it. The singular feature of the case was, that the head was far advanced in the putrefactive process, while the body and limbs presented a healthy appearance.

Limbs have sometimes been amputated in utero in this manner, and, in this case, had delivery been delayed, the head would have doubtless been amputated, while the vitality and integrity of the remainder of the body would have been maintained by the unobstructed circulation through those parts.

Criminal Abortion.—In the July number of the *North American Medico-Chirurgical Review*, Dr. Horatio R. Storer, of Boston, has an able article upon criminal abortions, which is continued from the three preceding numbers of the *Review*, and still to be continued. We cannot, in this brief *summary*, give a synopsis of these articles

and we do not care to make the attempt, as we take pleasure in advising all our readers to read the articles entire.

That criminal abortions are becoming painfully frequent, no one will deny who has had his attention for a moment directed to the subject. That the destruction of the fœtus in utero, at whatever time after conception, is always a crime, unless it becomes a necessity to save the mother's life, or to avert the hazards of a Cæsarean section, it is strange that any one should deny. To deliberately destroy the child in the womb, without a warrantable cause, is in all cases murder, and he who lends himself to the work places himself on a par with Herod, who ordered the murderous sacrifice of defenceless children.

It is perhaps not too much to say that in our large cities probably full one-fourth of the conceptions result in abortions! What a great sacrifice of life is there here! If we have overstated the fact, we should be glad to be convinced of it. It is by no means flattering to our vanity, to the boasted superiority of our Protestant religion, and the moralizing influences of our civilization, to know that the Catholics are far in advance of us in this particular. They hold the products of conception sacred.

We are happy to say that in the country criminal abortions are comparatively infrequent; yet every observing physician knows that even here they are by no means rare. We have many a time been importuned to destroy the products of conception, in the early stages of embryonic life, not only by the unfortunate unmarried, but by intelligent, respectable, and, otherwise, moral, married females. And we are sorry to say, though in all cases refusing, we do not now remember of a single case, in which we have been thus consulted, where abortion has not been secured through some means. We introduce this fact simply to illustrate the facilities of procuring abortion, when one is determined upon it. Only two weeks since we were consulted by a married lady, aged thirty-eight, who has two children, aged respectively fourteen and seventeen, with the intent of having abortion induced. She is an enthusiastic and exemplary member of the Church, and yet professes to see no wrong in taking the life of her own offspring, if it be only done *before it breathes!* This woman was four and a half months advanced, and motions were brisk; yet, through false feelings of shame, she seeks the destruction of her own child! We labored for hours trying to convince this lady of the heinousness of the crime, and with what result may be judged from the fact that we have just returned from attending her successful

abortive efforts. Through what means her ends were accomplished we did not inquire. The present week we have been consulted by a married lady, aged twenty-five years, who has two children, the youngest only six months old, for the purpose of having abortion produced. She supposes she is two months advanced. She says she is willing to have children once in two or three years, but once in twelve months she is unwilling to submit to. We shall soon expect to learn that her purpose has been accomplished. We once knew a mother of three intelligent and beautiful children, who said that she had conceived and procured abortion as often as once in four months, for sixteen years! When such practices are of daily occurrence, by an intelligent and Christian people, it is certainly high time that some one should raise a voice of protestation, and that that voice should be echoed by every intelligent physician in the land.

We had marked several passages for quotation in the paper in the July number of the *Review*, but we will do a better work in referring to the paper itself, or rather to the series of papers.

The True Cause of Long and Short Sightedness.—In the July number of the *N. A. Medico-Chirurgical Review*, Prof. C. W. Wright, M.D., of Kentucky, publishes an article upon the above subject, in which he differs from many other authorities in regard to the true cause of long and short sightedness. Thus he says, "In regard to myopia, there is no proof that the refracting power of the lens, or other humors of the eye, is increased, and in the great majority of cases the cornea is not more convex in near-sighted persons than in those not so affected; on the contrary, the reverse frequently appears to be the case." Prof. Wright gives his opinion thus: "Now the essential cause of short-sightedness is to be sought for in the iris, which in all cases is preternaturally contracted, or possesses an unusual degree of irritability." "The true cause of long-sightedness consists in a preternatural dilatation of the pupil of the eye, or, what amounts to the same thing, a loss of irritability of the circular fibres of the iris." The author's experiments seem to confirm the correctness of his conclusions.

Treatment of Synovitis.—In the *Medical and Surgical Reporter*, for June 25th, J. R. McClurg, M.D., has an article upon the above subject. He says, "The constitutional treatment recommended by authors is probably quite appropriate; but the local, such as leeching, cupping, blistering, pustulation, with tartar-emetic ointment, caustic potash, the moxa, the actual cautery, and cutaneous incisions, against each

and every one of them I do protest, and denounce them in the majority of cases, as worse than useless."

As Dr. McClurg's constitutional treatment possesses no peculiarities worthy of remark, we give only his topical. "If it be the knee which is the seat of disease, I apply a roller most carefully upon the limb, from the toes to the groin, as tightly as the condition of the disease will permit, and then use ice, vinegar, and salt, evaporating lotions, or flannels wrung out of hot water, to the knee, if the case be one of acute synovitis. If it be a case of chronic synovitis, I invariably cover the joint with a plaster of the ceratum hydrargyri compositum, and over this a tight roller, as above. If suppuration has already taken place, the pus must be let out by a *free incision*, and not by a small puncture, previous to the application of the roller. In the acute stage, after the roller is applied, the limb must be supported on pillows; but in the chronic stage a carved splint is decidedly preferable." We confess to a liking for Dr. McClurg's local treatment. We have seen suppuration so often occur, where cupping, blisters, and croton oil had been long and perseveringly used, that we have almost come to regard each case of synovitis as having its specific and unalterable tendency to suppuration or resolution stamped upon it at the outset. Our local treatment, for a time, has been perfect immobility, with warm or cold poultices, whichever might be most agreeable, of elm or flaxseed.

Tetanus.—In the *New York Review and Buffalo Medical Journal*, for July, Dr. Ranking, of Buffalo, reports a case of tetanus, of much severity, occurring, as a primary effect, after a blow from the kick of a horse, that terminated favorably in a few days. The treatment was tartarized antimony, sulphate of morphia, of each two grains, and water four tea-spoonfuls; one tea-spoonful of this prescription was ordered every half hour. Three pints of blood were drawn. Subsequently a blister was drawn on the back of the neck and down the spinal column.

Croup.—In the same number of the journal just referred to, Prof. Theophilus Mack, M.D., of Buffalo, quoting from Paris journals, says, that "M. Bouchut reports three cases of croup cured by large and repeated doses of tartar-emetic. To a girl aged three years he gave ten grains, in doses of two and a half grains every half hour, in syrup of poppies. The cauterization of the larynx he recommends to be practiced at the same time, and the emetic given every half hour, so that the child may throw up much, and not be too severely purged."

This is not a new treatment, and even M. Bouchut's doses have been exceeded, if we rightly remember; and we are also of the opinion that it

is not the best treatment for this formidable disease. Certain are we that in Paris the children, or the antimony, are composed of different materials from the same articles in this locality, if children of three years can take two and a half grains of antimony every half hour, for two or three days together, and not die of the medicine, if not of the disease.

In the same communication, Dr. Mack says that Prof. Michel has cured a case of facial neuralgia, by a section of the infra-orbital, inferior dental, buccal, and lingual nerves. This is neurotomy with a vengeance!

Operations for Absence or Obliteration of the Vagina.—In the July number of the *Chicago Medical Journal*, Prof. Daniel Brainard, M.D., of Chicago, has an able article upon the above subject, illustrated with a case. Prof. Brainard lays down the following rule: "That absence or obliteration of the vagina in *unmarried women*, where the menstrual flux does not take place into the uterus, does not require or justify any attempt at operation. It should, whenever its existence is ascertained, be considered an insuperable bar to the contracting matrimonial relations." But where the menstrual flow takes place and is restrained, thus endangering the general health, or where the married relation has been assumed and the patient desires an operation, the case assumes a different aspect.

Two or three weeks since we were consulted by an unmarried lady, aged 18 years, who had never menstruated. We learned that she had, at different times for the last three years, been under treatment for amenorrhœa. As the patient was well grown and the breasts well developed, we suggested that the difficulty might be mechanical. On examination, the vagina terminated in a *cul-de-sac*, less than an inch within the os externum. No evidences of retained menses were discoverable. We advised no treatment, and *single blessedness*. Should she marry, which we think is contemplated, we shall probably operate and report results.

REVIEWS AND BIBLIOGRAPHY.

A Practical Treatise on the Diseases of Children. By D. FRANCIS CONDIE, M.D., &c., &c. Fifth Edition, revised and enlarged. Philadelphia: Blanchard & Lea. 1858. Pp. 762.

The earlier editions of this work have made it quite familiar to the profession, and a simple announcement of this might seem to be

all that is necessary. The call for repeated editions of the work serves to show, if those editions have been large, that it is ranked as an authority, and much sought for by the younger members of the rofe ssion,p in making their selections of books for a library.

Dr. Condie is evidently no idler. The books which he edits, the articles he writes, the reviews and selections which bear his initials in the medical journals of Philadelphia, prove that his pen is a busy one, and has no leisure to rust out. Neither is he an undecided man. He sets things down and sets things up with an air which convinces you that he is strongly of opinion that he knows what is what, and that those who differ from him are to be pitied, they are so palpably wrong. His whole physique, and his whole writings, show him to be a man who would like and dislike with a will; who would rely upon his opinion in face of all the world; who rarely could be convinced of any error into which he might have fallen. In fact, when one sees him, hears him speak, or reads his writing, one is reminded of the proverb concerning Scotchmen, viz.: that "it becomes them to be right; for if they are wrong, they are eternally wrong."

This treatise on the diseases of children is fully illustrative of the peculiarities of its author; and these, so far from being mollified in the successive editions, grow more marked and prominent. To our own mind it is very clear that Dr. C. set out by being wrong on many points which concern the treatment of disease in children; and, however much we may regret it, we are not surprised that he has not yet got right. In fact, we do not expect him to do better. But this treatise has long seemed to us a very unsafe guide for young practitioners, and we therefore take the present occasion for setting forth some of the reasons for our opinion. We do not suppose, for a moment, that what we may say will change the opinions of the writer, but we do hope to be able to save some one from blindly following his lead.

The defect which strikes one at first is the excess of the author's conservatism, to give it a gentle name; or, to speak more definitely, the persistence with which he clings to his early notions. Somewhere he speaks of his forty years' practice, which certainly entitles him to be heard on those topics in which he has continued to be a *learner*. But it by no means follows that a man has continued to advance in medical knowledge and skill because he has written prescriptions or doled out medicines for forty years. This persistence is the more remarkable because Dr. C. has been quite constantly occupied during a large portion of this time in editorial duties, either of compilation or

review, which have compelled him to be more or less familiar with the current periodical professional literature. He has, however, been rather a *reader* of it, than a student of it; and hence, although we find in this book that English, French, German, and even American journals are referred to on different points, and in different diseases, still they have little effect upon his opinion, and tend but little to modify his treatment. We are sure that Dr. Condie will acknowledge the correctness of our statement, though we are not so certain that he will see it to be a defect. In fact, he says in his preface, that in the preparation of the treatise, he has "relied chiefly upon his own observation and experience;" and that "he has made use of the labors and adopted the opinions of others, *only* when he has found them to correspond with, or to be confirmatory of, the results of his own observations and inquiries." And herein is described the precise peculiarity which, to our thinking, is the cause of this grievous defect. No man who uses the labors of others *only* when they confirm the results of his own observations and inquiries, is much benefited by what he reads of the doings of others. In fact, so long as he brings everything to the Procrustean bed of his own experience, making it square with this, limited though it must be, he ceases to be a leader in the progress of medical science, and his writings cannot be an exponent of anything more than his own ideas. The true student, the man who does not cease to be a learner, ever brings his own experience to the test of trial with others, not pronouncing this or that to be untrue because it has not been his practice, but constantly receiving the statements of others as of authority, justifying a candid comparison with his own experience, and at the fitting time demanding impartial trial. Not that he should run after every will-o'-the-wisp; for this defect is as grave as the one to which we are objecting, though it certainly cannot be greater.

The evils of such a habit of mind, great as they are in a *practitioner*, become tenfold more important and more to be regretted in one who sets himself up to be a *teacher*. In the latter case, the prejudice, which does harm enough in the practice of the individual, is sown in the mind of every pupil, and sometimes is with difficulty uprooted.

But another, and, if possible, greater fault, is in the excessive use which Dr. C. advises of those heroic remedies, blistering, bleeding, and the administration of calomel. We do not hesitate to say that each of these methods of treatment must occasionally be resorted to in dealing with the diseases of children; but we *know* that they are not re-

quired so often as they are advised by this author. Blistering, even when the surface vesicated is not very extensive, is a grave matter for a child; and we have seen children, who had recovered from the disease under which they labored, die of the blistering which was not needed to cure them. And yet this was in the hands of practitioners who used them with much less freedom than Dr. Condie would advise them. Every one recognizes the danger to the life of a child when a small and superficial burn on the chest is received; an unfavorable prognosis being too frequently the correct one. And yet blisters, acting in the same way precisely, are praised by Dr. Condie, as "remedies from which much advantage will be derived in *most* of the cases of pneumonia occurring in children." So, too, in treating of bronchitis, he says: "After bleeding, either general or local, has been carried as far as is thought advisable, there is, perhaps, no remedy from which more decided relief will be derived, than a blister applied to the upper part of the chest, or between the shoulders." It is true that in both these cases he directs its removal as soon as the skin is uniformly red, when an emollient cataplasm is to replace it. But, if this is not sufficient in such young subjects to lead to vesication, it is incurring a fearful risk of it, when the same redness could have been produced by other means, without that danger. Throughout the volume we find blisters recommended to be applied to the head, to the chest, to the abdomen, without, as far as we can observe, a single caution as to their use, and certainly in a way that would justify a tyro in believing them to be useful in almost every severe disease, and in resorting to them on almost every occasion. It is to be borne in mind that this work will be chiefly consulted by tyros.

So it is with bleeding. It is freely recommended, as if it were not a very serious matter to a young child to be leeched, or to have a vein opened. We have had the curiosity to examine the book very minutely on this point, and have taken the trouble to copy the words used by the author in recommending the abstraction of blood in the class of diseases which best excuse it, namely, the inflammations. The reader will be as much surprised as we were.

Inflammation of the Brain.—"Bleeding should be resorted to upon the very onset of the disease, and carried, within as short a time as possible, to an extent commensurate with the violence of the symptoms and the age and vigor of the patient. If the child is old enough, a vein should be opened in the arm, while the patient is in an erect or sitting posture, and the blood drawn in a full stream, until paleness of the face, or other symptoms of approaching syncope, are induced; and should the symptoms of reaction, with active determina-

tion to the brain, again return, the bleeding should be repeated without delay, and carried to the same extent. When we are unable, in consequence of the age of the patient, to procure blood from the veins of the arm, we may open one of the jugular veins, or apply a sufficient number of leeches to the hands or feet, and promote the flow of blood from their bites by immersion of the parts in warm water."—P. 426.

Inflammation of the Breasts.—"When, from any cause, considerable inflammation, pain, and swelling of the breasts take place, the case should be treated by a few leeches, and the application of soft emollient poultices."—P. 701.

Inflammation of the Bronchi.—"Whenever bronchial inflammation is attended with symptoms of any degree of severity, more especially when it occurs in robust, plethoric infants, blood-letting by cups or leeches is the remedy upon which alone our chief reliance should be placed. It should be resorted to as soon after the inflammation is developed as possible."—P. 292.

Dysentery.—"Leeches should be applied along the course of the colon, in numbers proportioned to the violence of the disease and the strength and age of the patient, and repeated, if, after their first application, the symptoms remain without considerable abatement."—P. 260.

Diphtheritis and Gangrene of the Throat.—"In robust children, particularly in those of a sanguineous temperament and plethoric habit, in whom the swelling and inflammation of the throat are considerable, and attended with symptoms of intense febrile excitement, general as well as local bleeding should be resorted to. Even when general bleeding may not be considered admissible, leeches to the throat, behind the ears, or to the angles of the jaws, will, in many cases, be found advantageous."—P. 178.

Scrofulous Inflammation of the Ear.—"In cases attended with symptoms of a good deal of severity, leeches, a mild, unirritating diet, and the use of the tartarized antimony, with nitre and calomel, or with the sulphate of magnesia, in solution, as directed in scrofulous ophthalmia, will be proper."—P. 641.

Scrofulous Ophthalmia.—"If the affection of the eye is recent and acute, the application of a few leeches to the temples, and to the external angles of the eye, will often be advantageous."—P. 637.

Inflammation of the Gums.—"If the inflammation is not promptly reduced by these means, (mild emollient and astringent washes,) a few leeches should be applied to the angles of the jaw, or to the gums themselves."—P. 151.

Enteritis.—"In most cases, leeching will be proper. The leeches should be applied over the surface of the abdomen, and graduated in number, according to the intensity of the local symptoms. Some degree of judgment, however, will be demanded in the employment of leeches in inflammation of the intestines, especially in children. Few cases occur in which a moderate application of them will not be proper and beneficial; and whenever the pain, heat, and tension of the abdomen are considerable, they should be more freely employed, and may

be repeated, if the first application fails to produce a decided abatement of the symptoms just enumerated."—Pp. 256–7.

Pneumonia.—"The employment of blood-letting, particularly by cups or leeches, will very generally be found beneficial."—P. 308.

Erythematic Stomatitis.—"When marked by a greater degree of severity, it may be necessary to apply a leech or two at the angle of the jaws."—P. 138.

Coryza.—"In more violent cases, the application of a few leeches to the root of the nose will be advisable, with some gentle diaphoretic."—P. 284.

Inflammation of the Navel.—"In some instances, we have seen the inflammation, in cases of ulceration of the navel, so extensive as to require the application of a few leeches."—P. 700.

Angina Externa—Phlegmone Parotidea.—"In cases of simple phlegmonous inflammation, the treatment consists in the application of leeches to the neck, in numbers proportioned to the extent of the inflammation; and their repetition, after a short interval, if the local symptoms are not sufficiently reduced by the first application."—P. 185.

But we cannot allow more space for these quotations; though we may add, that those we have given are not selected, but are as they come in the index under the head of Inflammations. The remainder are quite equal to them.

No one of experience and observation in the treatment of children can fail to be astonished at such free use of this heroic remedy; and it seems to us incredible that the author himself should resort to letting blood with such readiness.

But it is in advising the use of calomel that the author outdoes himself. Here quotation is impracticable, as will be realized when we state the results of a careful examination to which our curiosity led us. Of the whole number of diseases treated of by the author, excluding mechanical injuries and such affections as *follicular warts*, *asphyxia*, *polypus of the rectum*, &c., we find that the whole number is *sixty-eight*. The use of calomel is advised in *fifty-one*, leaving only *seventeen* to go destitute of this remedy. This use of calomel is carried to such an excess, that it is recommended in cancrum oris; though, we are thankful we can add, the author had grace enough to say that "it is to be employed with the utmost caution."

It is a great pity to have so excellent a remedy so grievously abused, but it is such books as this and such practice as this that give occasion to the whole army of irregulars to lay just blame upon the faculty, and thus to obtain the too stable foundation for all their edifices.

It is proper to repeat, that the objection to Dr. Condie's recommendation of this *heroic* practice, great as it would be otherwise, is

increased tenfold by the fact that the book is intended for the use of tyros. Where this is a young practitioner's only book upon these diseases, as must often be the case, we cannot conceive it possible that many lives should not be needlessly sacrificed by him; and only years of study would rid him of the habit of drawing his lancet, or spreading his plaster, or parceling out his calomel to the greater part of his infantile patients. We pity the helpless sufferers, but feel justified in laying more blame on the author than on his pupil.

To our thinking, there are, besides these errors of *commission*, abundant errors of *omission*, due to that obstinate neglect of all knowledge which is not exactly in accordance with his own experience, which the author so ingenuously confesses to be his custom. It is not our purpose here to enumerate them, having already transgressed our intended limits. But we have said enough, we apprehend, to justify us abundantly in declining to commend this book. There are many other better guides in the treatment of children; there are few more unsafe. E. H. P.

A Practical Treatise on Enteric Fever; its Diagnosis and Treatment: being an analysis of one hundred and thirty consecutive cases, derived from private practice, and embracing a practical history of the disease in Virginia. By JAMES E. REEVES, M.D., of Virginia. J. B. Lippincott & Co., Philadelphia.

The medical profession is mostly indebted to college professors and city practitioners for its text-books and its literature. The former too often know little of practice, and the latter see disease only as modified by city influences. Diseases, in their symptoms and requirements for treatment, are not always the same in city and country. There are many country practitioners, whose field of observation is extended, and whose labors run through many long years, that might deliver over to the joint stock of the profession a rich harvest of practical facts, would they but take the trouble to do so. There are many, going quietly to their daily conflict with disease, month after month, and year after year, who wield their weapons of warfare with a judgment, tact, nice discrimination, and practical skill, worthy of all praise; the community around them receives almost unconsciously the benefits of their labors, while the literature of their noble profession would die of inanition for aught that they contribute to its sustenance.

Dr. Reeves is a country practitioner, yet he has ventured to take notes and to print them. The result is a little book on enteric or

typhoid fever. A part of the material in the volume before us was written for and published in the *Buffalo Medical Journal*, for 1856.

Dr. Reeves' work does not profess to be complete in all that pertains to enteric fever, but is a concise statement of the author's opinions upon subjects of practical interest, based upon his experience; it is, hence, not amenable to those rigid rules of criticism that might otherwise be applied to it. We shall simply give an analysis of its contents, interspersed with such remarks, suggestive and critical, as may seem appropriate.

The first chapter is devoted to preliminary matters, and the author, in our opinion, settles the question of non-analogy of typhus and typhoid fevers in quite too few words. Of the latter, he says, "It is certainly, I think, no more like typhus than roseola is like scarlatina." Granting that this is now the fashionable opinion; yet, because such close and thorough observers as Drake thought differently, the subject was worthy of more extended discussion. For convenience, Dr. Reeves divides enteric fever into *mild*, *intermediate*, and *malignant*. This arrangement is certainly simple, and may apply to nearly all diseases of any gravity.

Chapters 2d and 3d are devoted to symptomatology, and these are decidedly the best chapters of the work. Dr. Reeves is evidently a good observer, and the symptoms are concisely, and yet graphically, stated. Of his one hundred and thirty cases, the access was sudden in forty; in the remaining ninety the period of access varied from two to eight days. The *rose colored* eruption, Dr. Reeves says, he has seldom failed to observe, even in the mildest forms of the disease; while the transparent vesicular eruption, called *sudamina*, has very seldom occurred, except in the graver forms of the disease.

Chapter 4th is devoted to *anatomical lesions*, and is copied entire from Wood's Practice of Medicine.

Chapter 5th is devoted to the *history* and *causes* of the disease, and, though perhaps the longest chapter in the work, is really the most defective. Here was a wide field open for investigation. Of the history of the disease we care less, but the atmospheric causatives and terrene dependencies of enteric fever should have been more fully brought out. As the present writer expects soon to publish the results of his investigations upon this subject, it will be waived for the present.

Chapter 6th is devoted to the *duration* and *complications* of the disease. The opinions of several are quoted upon the first point, going to show that the average duration of enteric fever is about 21 days.

Of Dr. Reeves' mild cases the average duration was about 15 days, and of the other two forms about 30 days.

Chapter 7th is devoted to *terminations* and *sequelæ*, which subjects are handled with very great brevity, and quite unsatisfactorily.

Chapter 8th is devoted to *diagnosis*, *mortality*, *prognosis*, and *nature*. This chapter is very satisfactory; an analysis of which, however, we have not space to give. Suffice to say, that the author is a believer in a specific poison, and in the contagious nature of the disease.

Chapter 9th, which embraces about sixty pages, and is really the most important part of the work, is devoted to treatment, and will demand a passing notice. It was doubtless to express the author's views upon this point mainly that the work was written, and we have no doubt that, in the main, those views are correct, though in some minor details we might be disposed to differ from his expressed opinions.

Dr. Reeves very justly places a high estimate upon *emetics*, especially when brought to bear very early in the attack. In view of the general disturbed condition of the stomach and the prospective lesions of the bowels, it is apparent that the means to this end should be as mild as is consistent with thorough emesis.

Of *cathartics*, the author has a much higher opinion than we. He thinks, in all cases, a cathartic should be administered early; calomel with jalap or rhubarb is preferred. It is his opinion that the bowels should be kept loose to the end of the disease; thus he says, "It is always best that the bowels should be suffered to remain moderately loose. *Two* or *three* discharges a day, I think, are of service; and if these do not take place naturally, some mild laxative should be administered." Against such interference we enter our decided protest. Quite early a cathartic is appropriate, if the bowels are not already loose; but nothing harsher than blue pill, aided if need be with castor oil, should be administered. After that, one movement a day is amply sufficient, and we had much rather they would move only once in two days, than that they should move three times in one.

Dr. Reeves is an earnest advocate of the use of the *veratrum viride*, and gives it in such doses as will keep the pulse below 80 per minute. Of this treatment we cannot speak experimentally, as we have never used the veratrum viride in enteric fever. Our objections to it have been based upon theoretical grounds. Until a change comes over our experience, we are content to dispense with it, having lost but one case of enteric fever in eleven years of practice. It is but just, however, to observe that our cases have been mostly sporadic. In

the one case referred to, death resulted from cerebro-spinal meningitis.

Dr. Reeves seconds the opinions of Prof. Wood, in regard to the utility of *oil of turpentine*, in certain conditions and appropriate cases. He, however, believes that *opium* is equally efficacious, where not counter-indicated, and should be combined or administered conjointly with the oil. Where the brain and its membranes are unaccompanied with congestion, we can bear testimony to the utility of the opium as a nervous stimulant and general sedative; and, all in all, we believe it second to no other agent in enteric fever.

Of the *chlorate of potash* Dr. Reeves speaks highly, and probably justly. Of tonics and stimulants he has less confidence than ourselves. He seldom resorts to quinine earlier than the end of the second week. In this region, as we have observed the disease, we are confident benefit will accrue from its earlier use, especially when combined with opium, and perhaps ipecacuanha. As an antispasmodic, Dr. Reeves trusts mainly to valerian and camphor. To this end we are in the habit of using asafœtida, opium, and camphor, in combination, while Hoffman's anodyne is usually given in connection with such other remedies as the necessities of the case require.

There is one agent that Dr. Reeves has not alluded to, which, because of its peculiar adaptation to certain conditions frequently present in enteric fever, should not be passed over in silence. When there is subsultus tendinum, low, muttering delirium, and the evacuations are involuntarily discharged, all showing a complete prostration of the nervous system, there is probably no combination of medicines equal to *strychnine*, which may be beneficially combined with small doses of opium. Warm turpentine applied the whole length of the spine is a powerful auxiliary.

Chapter 10th is devoted to the management of convalescence, and requires no special notice.

Having now given a brief synopsis of the work before us, we conclude by saying that, though lacking some of the requisites of a complete treatise on enteric fever, it is a very readable and instructive work. We consider that Dr. Reeves has erred in making no allusion to Dr. Drake, who has written one of the best essays on typhoid fever ever written by an American, and whose researches cover Dr. Reeves' field of labor. We have no doubt, however, that the physicians of Virginia, to whom the book is dedicated, as well as those of neighboring States, will appreciate the author's labors, and derive instruction from its perusal. If it accomplish no other purpose than to

encourage other country practitioners to make systematic records of their observations and experiences, and, where of sufficient interest, induce them to publish such records, it will not be without its beneficial results.

To say that it is published by Lippincott & Co., is to say that paper, type, and binding are everything that a book of the kind should be. O. C. G.

A Treatise on Gonorrhœa and Syphilis. By SILAS DURKEE, M.D., Member of the Massachusetts Medical Society, &c., &c. With eight colored plates. John P. Jewett & Co., Boston. 1859. Pp. 442.

This work is based upon an essay which gained the Boylston prize of Harvard University. In extending it to its present proportions, the subject has been much elaborated, and many important additions made.

The design of the author seems to be to avoid as much as possible vexed questions of a theoretical nature, and not to follow blindly any authority, however eminent, but, by the aid of his long experience, to elaborate from every source what is necessary to make up a practical treatise for the instruction of students, and the daily use of the general practitioner.

A work of this description, it seems to us, is very much needed, the diseases of which it treats having become widely diffused through the country, and coming within the circle of almost every physician's practice. It is true that our medical literature is quite full upon these subjects; in fact, so much has been written, and so many contradictory views advocated, that a practical and uncontroversial work has become a great desideratum. Hunter, Ricord, Vidal, and a host of others, have written with much ability and at great length, and we are certainly indebted to them for our present correct idea of the theory and pathology of these diseases; but each of these eminent men has his own peculiar ideas and opinions, more or less at variance with all others, and we believe most physicians will agree with us in saying, that after consulting any or all of these writers, with a view to any particular case, a man may go away more puzzled than ever, both as to his diagnosis and treatment. In fact, the great men in this specialty have fired over the heads of the profession at large. Our author seems to have had this fact in view, for he remarks in his preface:

"The paramount design which I have endeavored to keep in view

has been to furnish a book which shall be practically useful. I have studiously avoided engaging, to any great extent, in any doubtful matters."

We have given this work a careful perusal, and feel confident in the assertion that the medical profession of the country will agree with us in the opinion that the author has successfully carried out his design. The style is quaint and familiar, without being diffuse; easy, pleasant, and almost conversational.

The reported cases are judiciously chosen and well related, and many of the peculiar and incidental perplexities which arise in the course of practice in these diseases very properly alluded to. The treatment of the various forms of gonorrhœa and syphilis, with their complications, is very fully discussed, and a great variety of formulæ given.

An experience of thirty years in the treatment of skin diseases, as a specialty, enables Dr. Durkee to speak with peculiar authority on the diagnosis and management of secondary and tertiary syphilis; and on this subject, upon which general practitioners are most often at fault, the work is particularly clear and elaborate.

On all the vexed questions he states his own convictions with great modesty, giving his reasons, and treating those who differ from him with the utmost courtesy and fairness.

The limits of a simple notice do not allow us to examine the chapters seriatim. We close with the remark, that the work is executed in very neat style, the plates clear and original, and we confidently recommend it to the profession as the best work, for a manual on these subjects, which has yet been published.

EDITORIAL AND MISCELLANEOUS.

Letters from Professors J. Hughes Bennett, of Edinburgh, and Carl Rokitansky, of Vienna, on the Post-Mortem Examination of the late S. S. Whitney.

The following opinions relative to the pathological appearances found at the autopsy of the late Mr. Whitney are of great interest, in connection with the history of this remarkable case. Comment is unnecessary. The agreement of both of these celebrated pathologists, whose opinions are here given, upon all the essential points in the case, is conclusive. To both of them was forwarded a copy of the Febru-

ary number of the MONTHLY, containing a full report of the proceedings of the Academy of Medicine when this subject was under its consideration. In addition to this, a copy of the original post-mortem, certified by his Honor the Mayor of New York, was sent to Prof. Rokitansky, by his former pupil and personal friend, Dr. Charles Bernacki, of this city. Dr. Bernacki has kindly placed Prof. Rokitansky's reply at our disposal. The letters are placed in the order of time in which they were received. To the translation, here given, we append the German, that both may be seen by those who are familiar with the language in which the original is written. D.

PROF. BENNETT'S LETTER.

EDINBURGH, *May* 18, 1859.

MY DEAR DOCTOR—I have hesitated for some time as to how I ought to reply to your letter; that is, whether it would be better to enter into a lengthy criticism of Mr. Whitney's case, or simply answer the two queries you have put me. After carefully studying the case itself, I find so much to comment on in the various branches of diagnosis, pathology, treatment and ethics, that I feel constrained to throw my notes aside, and give up the idea of entering into the matter fully, as it would oblige me to write a treatise rather than a letter.

You request my opinion: 1. As to the tubercular character of the pulmonary abscess; 2. As to whether such effect as Dr. Beales intimates could have been produced by the injection of nitrate of silver, which was employed.

1st. *As to the tubercular character of the pulmonary abscess.*—The description given by Dr. Green of the physical signs on the 25th October, 1858, is remarkably clear, (see AM. MONTHLY, p. 104,) and can leave no doubt as to the existence of condensation of the left lung at the apex, with softening of the tissue. When Dr. Beales was called in, Dec. 14th, he does not seem to have made any physical examination of the chest. At all events, no account of any is given from that time up to the period of the patient's death, (MONTHLY, p. 111 to p. 115.) But he tells us afterwards, that he had previously made such examination (p. 117) towards the end of October; he gives no description of these signs, but only states his opinion, viz., that "he could not discover any tubercles in his lungs, and did not believe any existed." The report of the post-mortem, however, demonstrates that the physical examination of the lung made by Dr. Green was in every respect correct, (MONTHLY, p. 116.) "The whole of the upper part of this lobe (the left) was red, and solid—hepatized." "At the commencement of the bronchial ramifications there was an open cavity,

about the size of a small black walnut, of a reddish-brown color, and irregular villous surface, as though a slough had separated." This answers thoroughly for the flat sound, detected two months previously, over the upper portion of the left lung, and the humid râle audible below the left clavicle, on inspiration and expiration.

As to the nature of the disease, Dr. Beales conceives it to have been acute and recent pneumonia, (p. 118.) I cannot think so, when I consider the accurate account of physical signs given two months previously, then indicating the condensation and softening which were subsequently found. It must have been chronic pneumonia passing into gangrene, or a limited tubercular abscess accompanied by chronic pneumonia of the apex. The descriptions given of the lesions do not enable me to say which of these it was. In fact, I consider it a matter of little importance, because a chronic exudation of the apex so readily passes into tubercle, and an old tubercular abscess is so commonly accompanied by chronic pneumonia, that, in truth, it often becomes difficult, if not impossible, to say where tubercle ends and pneumonia begins. It is enough that a chronic *exudation* was there, and that, I consider, Dr. Green fully indicated by his physical signs six or seven weeks before Dr. Beales was called in.

2d. *As to whether the treatment caused the disease.*—Dr. Beales informs us that Dr. Mott told the family, after the post-mortem examination, that they had not seen any disease that might not have been produced within a week, (Monthly, p. 118.) According to this idea, it could not have been the injection into the trachea which caused the pulmonary disease, as that operation was performed on the 6th of December, without causing any irritation, and he died on the 21st. Besides, the pulmonary lesion existed on the 25th October, as proved by physical signs. The injection, therefore, could not have caused that lesion. Is it not more probable that, a chronic exudation having existed at the apex, and a cavity formed, this latter perforated the pleura, causing the pleural exudation, followed by the emphysema of the cellular tissue? At what moment did this perforation take place? We are told that Mr. Whitney visited Dr. Green on the 14th of December, after breakfast, (the time is not stated;) the doctor passed an instrument into his throat, and finding some obstruction, he pushed the instrument with some force; he (Mr. W.) felt something give way, immediately experienced *severe* pain about the top of the windpipe, and told the doctor he had "hurt him;" he returned home, informed the family of what had occurred, and was seen by Dr. Beales at 1 P. M., (p. 112.) Dr. Green's account of what happened on the 14th is dif-

ferent. According to him, (MONTHLY, p. 106,) when the sponge reached the glottic opening, the patient partially closed the throat, so that the instrument did not enter the windpipe at all. It was at once removed, no more force having been used than that which is constantly employed every day in operations on the air-passages. The patient, after talking a while with Dr. Foy and myself, and remarking that "the operation hurt him more," or that "he felt it more than usual," he left, with the arrangement that he should return the next day and have the tube employed. The patient's account to Dr. Beales is, that at the moment the probang was arrested at the glottis, he felt something give way, and experienced *severe* pain about the top of the windpipe, (p. 112.) But is this consistent with the fact that he talked for a while with Drs. Foy and Green, and went home intending to come next day, &c.? Again, was the pain, if felt *at the top* of the windpipe, symptomatic of perforation of the pleura in the chest? It appears to me difficult to answer these questions, more especially when we read the account of the alarming condition of Mr. W. at 1 o'clock, when first seen by Dr. Beales, (MONTHLY, p. 111.) I am, therefore, inclined to ask, What occurred in the interval between the patient's leaving Dr. Green and his seeing Dr. Beales? This may have been an interval of three or four hours, and of this most important period I can find no account whatever. It is true, Mr. Whitney seems to have had the impression that his severe symptoms commenced when the sponge was arrested, but this is negatived by the evidence of Drs. Green and Foy, who saw no evidence of severe pain even in the throat. When, then, did the pulmonary and pleural perforation take place, which induced the emphysema and subsequent symptoms? With the facts at present before me, I cannot answer this question, but it is clear to my mind that it may have occurred during the hours not accounted for; that it might have been altogether spontaneous, connected only with the progress of the chronic pulmonary lesion; and that it had no relation whatever to the operation performed by Dr. Green.

In addition to the lesion already referred to, it appeared, on dissection, that there was an abscess behind the larynx, and stretching towards the left of the pharynx, the size of a hen's egg, with an opening at its upper and posterior part, into the pharynx, large enough to admit the end of the forefinger. This abscess was not discovered before death, by any of his attendants, medical or surgical. Dr. Mott, a great authority in surgery, asserts that this was an acute abscess. Dr. Beales distinctly states, (MONTHLY, p. 119,) that in his opinion it was caused on the 14th December, by the accidental lacer-

ation of the pharynx by the probang; and his account of the symptoms, as he observed them at 1 P. M. on that day, supports the supposition, especially the intense pain in the region of the larynx, shooting through to the cervical vertebræ, and down the course of the trachea to the chest; he kept grasping the larynx, &c. (p. 111.) Now, as the larynx was shown subsequently to be healthy, it is very probable that these symptoms were connected with the pharyngeal abscess. But how? Is such pain consistent with the first commencement of an abscess, or did it accompany the rupture of an abscess previously formed? By what signs was it pronounced to be acute? Might it not have existed before the operation of the 14th? Might it not have come on subsequently? On all these points I will not venture to speak. But having now used the probang in many hundred cases, and under all circumstances, I am at a loss to understand how its being arrested at the glottis would either lacerate the pharynx, so as to give rise to an abscess, or cause the bursting of an abscess which had already formed—"downward, behind and below the thyroid cartilage." I cannot but think that the application of the sponge had no more to do with this abscess, than it had with the exudation into the apex of the left lung.

Yours, very truly and sincerely,

J. HUGHES BENNETT.

PROF. ROKITANSKY'S LETTER.

MOST ESTEEMED FRIEND—

I received your letter on the 8th, along with the documents relating to the sickness and death of Mr. S. S. Whitney, through Mr. Wallner, or rather, as I was not at home, through my wife. First permit me to express my most heartfelt thanks to you, and my transatlantic friends, for the friendly remembrance which you show in the recognition of my scientific labors, and the honorable confidence reposed in me. And now to my task. I have devoted my entire attention to the documents you sent me, as you will perceive, *absque omni partium studio.*

Certainly the most important point is to determine the nature of the cavity in the left lung, "just at the root, or the commencement of the ramifications of the bronchiæ." This is very difficult, for two reasons: 1. Because the description of the cavity is very imperfect; and 2. Because the whole report (Gesammtbefund) is very defective, inasmuch as a complete dissection was not made. Neither sufficient local nor sufficient general data are given for a diagnosis.

In the last point of view, particularly, we are not certain whether a tuberculous individual or not is under consideration. It would seem as though no actual tuberculization was present.

If, under these circumstances, I give my opinion in compliance with your request, it can be of value only as a supposition.

1. The abscess in the larynx might be the result of a perichondritis; this abscess broke externally into the contiguous circumjacent areolar tissue. The red point found in the larynx was probably connected with the abscess. The reddening of the mucous membrane of the air-passages is of no importance.

2. I do not consider it as proved that the condition of the upper lobe of the left lung was that of recent hepatization. True, there was noticed a considerable pleuritic exudation on the exterior of the lobe, but I presume that this lobe of the lung had been partially attacked with atelectasis, (obturation,) in consequence of a bronchial catarrh, and was in a state of incipient destruction, (induration.)

3. The cavity in this lung (this lobe of the lung) I would consider as a bronchial sac, or rather as a cavern, (bronchial cavern,) resulting from the ulcerous destruction of such a sac.

Was this ulcerative process due to a continuous, exacerbating, catarrhal inflammation of the mucous membrane of the sac, or to a tuberculization of the mucous membrane of the same? We are obliged to accept the former solution of the question, inasmuch as the report denies the presence of any tubercles.

This cavernous opening must then be considered, since from it a destruction of both layers of the pleura proceeded, as the source of the extravasation of the inspired atmospheric air into the circumjacent areolar tissues. This, then, is my opinion with reference to the significance of the results of the post-mortem examination. As regards the operative treatment, I have not been requested, in fact, to give an opinion; still, you may perhaps like to hear that also. It is very evident that the two conditions met with, i. e., the abscess in the larynx, and especially the cavity in the left lung, existed before the treatment; and I also believe that the latter (the treatment) was not the cause of the death of the patient.

Your sincere friend,

ROKITANSKY.

VIENNA, *June 14th*, 1859.

HOCHVEREHRTESTER LIEBER FREUND—

Ich habe am 8ten d. Ihren Brief samt den den Krankheits-und Todes-Fall des Hrn. S. S. Whitney betreffenden Documenten durch Herrn Wallner oder vielmehr, da ich nicht zu Hause war, in letzter Instanz durch meine Frau erhalten. Zuvörderst erlauben Sie, dass ich Ihnen und meinen transatlantic friends für das freundliche Andenken, das Sie mir bewähren, für die Anerkennung meiner Bemühungen in der Wissenschaft und das mir geschenkte, ehrende Zutrauen meinen innigsten Dank sage. Und nun zu meiner Aufgabe. Ich habe den mir gebotenen Documenten meine ganze Aufmerksamkeit, wie Sie sehen werden, *absque omni partium studio* gewidmet :

Das Wichtigste ist wohl die Bestimmung, was für einer Natur die Cavitaet in der linken Lunge "gerade an der Wurzel oder an dem Anfange der Bronchial-Verzweigungen" gewesen sei. Die Entscheidung ist sehr schwierig aus zwei Ursachen, 1, weil die Beschreibung der Cavitaet sehr unvollkommen ist, und 2, weil auch der Gesammtbefund sehr mangelhaft ist, indem nicht die ganze Section gemacht wurde,—es sind behufs der Diagnose weder genügende Locale, noch genügende allgemeine Data geboten.

Namentlich weiss man in letzterer Hinsicht nicht, ob ein tuberculisirendes Individuum vorlag oder nicht. Es scheint zwar allerdings das wirklich keine Tuberculisation zugegen war.

Wenn ich unter solchen Umständen Ihrer Aufforderung gemäss meine Meinung sagen soll, so kann diese nur als Vermuthung gelten:

1. Der Abscess am Larynx dürfte das Ergebniss einer Perichondritis seyn; dieser Abscess hätte nach aussen in das anstossende Bindegewebe durchgebrochen. Mit diesem Abscesse steht wohl der im Larynx vorgefundene rothe Punkt in Zusammenhange.—Die Röthung der Luftröhren-Schleimhaut ist ohne Bedeutung.

2. Ich halte es nicht für ausgemacht, das der Zustand des linken oberen Lungenlappens eine blosse recente Hepatisation gewesen sei. Allerdings ist ein ansehnliches pleuritisches Exudat im Umfange dieses Lappens notirt, allein ich vermuthe, dass dieser Lungenlappen in einem gewissen Antheile in Folge von Bronchial catarrh (Obturation) mit Atelectase behaftet und in beginnender Verödung (Induration) begriffen war.

3. Die Cavitaet in dieser Lunge, (diesem Lungenlappen;) möchte ich für einen Bronchialsack oder vielmehr für eine aus ulceröser Zerstörung eines solchen hervorgegangene Caverne, (Bronchial caverne,) halten.

In der Frage, ob dieser ulceröse Process bloss der Ausgang andauernder exacerbirender catarrhalischer Entzündung der Schleimhaut des

Sackes war, oder ob dabei eine Tuberculisation der Schleimhaut desselben mit Schuld hatte, muss man sich für Ersteres in so ferne entscheiden, als der Befund jeden Tuberkel in Abrede stellt.

Diese Caverne muss, da von ihr aus eine Zerstörung beider Pleurablätter ausgieng, als die Quelle der Extravasation der inspirirten atmosphärischen Luft in das Bindegewebe angesehen werden. Diess wäre also meine Meinung über die Bedeutung der Ergebnisse der Leichenuntersuchung,—In Betreff ihrer Beziehung zu der operativen Behandlung bin ich zwar eine Meinung abzugeben, nicht aufgefordert, allein vielleicht möchten Sie sie doch hören. Es ist wohl klar, dass die vorgefundenen zwei Zustände d. i. der Abscess am Kehlkopfe und namentlich die Cavitaet in der linken Lunge schon vor der Behandlung bestanden haben und ich glaube auch dass diese letztere (die Behandlung) nicht die Ursache des tödtlichen Ausganges gewesen sei. Ihr

aufrichtiger Freund,

ROKITANSKY.

WIEN, *am* 14 *Juni*, 1859.

On the Influence of Mercurial Preparations upon the Secretions of Bile. By Dr. GEORGE SCOTT, formerly one of the Physicians to the British Hospital at Renkioi, Dardanelles.

[In a very interesting paper by Dr. Scott, including a series of experiments carefully made on a dog, all of which are detailed with great accuracy, it is shown that the common opinion about calomel increasing the secretion of bile is very probably erroneous. Dr. Scott concludes his elaborate paper as follows:]

All the above four experiments with calomel give one result, viz., *a diminution in the amount of fluid bile and bile-solids secreted after the administration of large doses of calomel.*

In the first two, particularly in the second, the disease was no doubt due somewhat to the diminished quantity of food taken the day after the calomel was given; but that it was not all dependent upon this cause seems to be pretty clear—1stly, from the fact of the bile of 19th June, the day following that in which food and milk were purposely withheld from the dog, having been considerably greater than the quantity secreted on the day following the 16th June, when also no food was taken, and when in addition 6 grains of calomel had been administered to the dog; and 2ndly, from the bile in the last experiment, when almost exactly the same amount of nourishment had been consumed *after* as *before* the exhibition of calomel, having been also very much diminished in quantity. In three of the above experiments, the bile-acids were also considerably *diminished* after the calomel; but in one, viz., the third experiment, they were *increased*. Why the bile-acids should be increased in the latter case, and diminished in the other three, it must be confessed it is difficult to explain.

Although it would be rash to venture any decided opinion from the very small number of experiments above detailed, yet the few that were made all point so much to one conclusion, that, if they be confirmed by future and more varied trials, they would throw considerable doubt upon the generally received opinion that calomel in large and purgative doses increases the flow of bile. It may be urged that although calomel does not increase the secretion of bile in the dog, that is no reason why it may not do so in man; and that, even if mercury do not excite the liver to increased secretion in a healthy state of the organ, it may still do so in certain diseased conditions of the same. If the first objection were true, the same could be brought against the results of the experiments which have been made upon the lower animals to ascertain the action of poisons, or any other articles of the Materia Medica. With regard to the second objection, nothing analogous occurs in the action of drugs upon other organs; there is no medicine which diminishes the secretion of urine in the healthy state of the kidney, and increases the same in certain diseased conditions of the organ; there is no medicine which diminishes the amount of sweat in a healthy state of the skin, and acts as a diaphoretic in certain diseased conditions of the integument. Hence it seems difficult to suppose that anything which diminishes the flow of bile in a healthy condition of the liver, should increase the secretion of the same in a diseased state of that organ.

Whether it be the mere purgative effect of calomel which causes the diminution in the secretion of bile, or some specific action, further experiments must decide. Of course it must be understood that the above remarks apply only to cases where *purgative* doses of calomel have been given. Whether small and frequent doses of calomel continued for a length of time, so as to produce the specific action of the mercury upon the system, really augment the biliary secretion, is matter for further experiment.

The above analyses were made in the laboratory of Dr. Lionel Beale, to whose great kindness I am indebted for the opportunity of performing these experiments.—*Archives of Med., No. 3, p. 223.—Braithwaite's Retrospect.*

— *Treatment of Burns by the Permanent Warm Bath.*—The observations upon which these conclusions are based were made on the occasion of an explosion which destroyed some fourteen persons, in a manufactory of fire arms, at Frankfort. Thirteen cases were taken to the hospital, with burns of every degree; all were treated with continued warm baths, or when this was inapplicable, by fomentations of warm water. The water, which was renewed twice a day, or more frequently when the suppuration was excessive, was maintained at the temperature of 27° Réaumur, (= 93° Fahrenheit.) An apparatus was employed similar to that used by M. Langenbeck in the treatment of amputations; and when, at the end of some weeks, this became fatiguing to the patient, warm fomentations were substituted.

The first effect produced by the bath was a considerable relief, and

soon the pain, which was at first excessive, ceased completely. The desiccated and hardened tissues were penetrated by the water and softened, and the eschars were more easily detached. This method of treatment protects the injured surfaces completely from all sources of irritation, and diminishes the chances of purulent resorption. Cicatrization progresses more rapidly in consequence of the maintenance of a uniform temperature, and of the slight compression exercised by the water on the injured tissues.—*Translated from the Archives Générales, quoting from the Deutsche Klinik.* S. E. C.—*N. O. Med. and Surgical Journal.*

— *Exhibition of Raw Meat in Diarrhœa.*—We have on more than one occasion alluded to this mode of treating diarrhœa, particularly the *Diarrhœa Ablactorum.* We copy the following, as it enters more fully into the best means for administering this valuable remedy:

Our readers have, doubtless, not forgotten the interesting history of the two little twin daughters of a wealthy Mulhouse merchant, who had been reduced by unconquerable diarrhœa to the last gasp of life, and who, fed with the pulp of raw meat, returned in a few months to a state of perfect and robust health. Many facts have, since then, confirmed our confidence in the value of this Russian mode of treatment. Mr. Trousseau never allows an opportunity to escape of recommending it, and of pointing out the best manner of rendering it both useful and acceptable.

The meat best adapted to the purpose is the fillet of beef; some patients, however, prefer the centre part of mutton chops. It should be cut fine, pounded in a mortar, and strained through a sieve or a cullender. The pulp, thus separated from the cellular texture of the muscular substance, is then gathered with a knife, and rolled in salt or powdered sugar, or mixed with currant-jam.

One of Mr. Trousseau's grandchildren would take it only when mixed with racahout, a farinaceous compound of cocoa, ground rice, and potato-flour, sweetened and flavored with vanilla. Mr. Trousseau causes it sometimes to be rolled into small salted balls, of the size of a hazel-nut, or in little oblong gobbets, which may be administered in soup, to the number of thirty or forty, equivalent to four or five ounces of meat pulp. In grown persons, and particularly with ladies, the physician will probably meet with a repugnance, which he must overcome by concealing the repugnant character of the medication. For this purpose some appearance of cooking may be imparted to the food by exposing a thick slice of the meat, for twenty minutes, to the action of a brisk fire; its surface is thus roasted, the interior parts remaining raw, and being then treated as we have said. Mr. Trousseau has thus caused to be prepared by Mr. Mialhe, (one of the principal apothecaries of Paris,) meat-pulp, combined with confection of roses, destined for delicate stomachs, which is taken without disgust, and even with pleasure, under the agreeable denomination of Damascene Preserve.

In children, the dose of raw meat, the first day, should not exceed $2\frac{1}{2}$ drachms in four meals. It may be doubled on the second day, and on the third attain eight drachms; and so on without any other

additional food than albuminous water. It is easy to measure with precision the quantity administered daily, by means of a small balance and the current coins, the weight of which is well known—the franc being equivalent to one drachm, and the five-franc piece to six drachms. The dose may be carried as far as ten or twelve ounces, and the children gradually recover their good looks, their plumpness and spirits. At the end of a month or six weeks, when diarrhœa has entirely ceased, the quantity of raw meat can be gradually decreased, and broth or underdone eggs can be substituted, so as to reduce the dose of meat to three or four ounces daily.

It is necessary to be aware that, at first, when already the nature and abundance of the diarrhœa have undergone a favorable change, the motions are red and fœtid. In one of the little Mulhouse patients we above referred to, this animal diet appeared to have occasioned the development of tape-worm, a parasite commonly met with in Abyssinia, where the natives feed on raw meat; but this kind of nutriment, not being so long persevered in, generally, as was the case in the instance of the little girl alluded to, this circumstance must be considered exceptional, and cannot counterbalance the decided benefits yielded by the Russian method of treatment in cases of chronic disturbance of the bowels, and especially in the unconquerable diarrhœa which children are subject to in their second year.—*Journal Prac. Med. and Surg., Paris.—Dublin Hospital Gazette.*

— The month has given us but little of interest to record in the way of medical intelligence. At the Academy nothing of moment has transpired. The last meeting in July was with difficulty organized, a quorum being obtained only at a late hour, and even then, in the absence of all other officers, the Secretary was obliged to call the Academy to order. No scientific business was transacted.

August, too, has passed, and a lethargic slumber rests upon the actions of the Academy. The President, at the first regular meeting in this month, left the chair, and, ascending the tribune, attempted to galvanize its members into a sort of spasmodic action by reading a paper on Tetanus. The dog-days, however, are omnipotent, and the few members who were present at this sitting listened, and were silent.

A nine days' wonder—a species of universal hydrophobia—a general distrust of the wholesomeness of the Croton water, gave occasion to some of the Fellows, at the last regular meeting, to irrigate the field of sanitary science, and sow therein the seed of political preferment. A paper upon the impurities in the water supplied to this city, its causes and remedy, was read by Dr. J. H. Smith. Beyond this nothing of interest.

With the return of cool weather we may look for a return of the Fellows to the benches of the Academy, of the officers to their chairs, and of the Academy to its working disposition.

— We would call attention to the admirable "Summary of Cotemporary Medical Literature" presented in the present issue of the MONTHLY. Dr. Gibbs has promised to continue this in future numbers, making it more thorough by extending his readings through a larger number of journals, which we shall place in his hands. This department of our journal will be interesting, as reflecting, as in a mirror, the advancement of our science in all parts of our country.

While we consider ourselves fortunate in having this valuable assistance from Dr. Gibbs, we congratulate our readers in having the spirit of the periodicals presented to them in so agreeable a manner.

Books and Pamphlets Received.

A Dictionary of Practical Medicine: Comprising General Pathology, the Nature and Treatment of Diseases, &c., &c. By James Copland, M.D., F.R.S., &c. Edited, with additions, by Charles A. Lee, A.M., M.D., &c. In three volumes. New York: Harper & Brothers.

A System of Surgery; Pathological, Diagnostic, Therapeutic, and Operative. By Samuel D. Gross, M.D., &c. Illustrated by 936 Engravings. Two volumes. Philadelphia: Blanchard & Lea. 1859.

The Action of Medicines on the System. By Frederick William Headland, M.D., B.A., F.L.S., &c. Third Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. 1859.

A Practical Treatise on Enteric Fever; its Diagnosis and Treatment: being an Analysis of 130 Consecutive Cases, derived from Private Practice, and embracing a partial history of the disease in Virginia. By James E. Reeves, M.D. Philadelphia: J. B. Lippincott & Co. 1859.

A History of the Discovery of the Circulation of the Blood. By P. Flourens. Translated from the French, by J. C. Reeve, M.D. Cincinnati: Rickey, Mallory & Co. 1859.

The Physician's Visiting List, Diary, and Book of Engagements, for 1860. Philadelphia: Lindsay & Blakiston.

Contributions to Midwifery and Diseases of Women and Children, with a Report on the Progress of Obstetrics and Uterine and Infantile Pathology in 1858. By E. Noeggerath, M.D., and A. Jacobi, M.D. New York: Baillière Brothers.

The Half-Yearly Abstract of the Medical Sciences. Edited by W. H. Ranking, M.D., and C. B. Radcliffe, M.D. No. 29. January to June, 1859. Philadelphia: Lindsay & Blakiston. 1859.

The Retrospect of Practical Medicine and Surgery. Edited by W. Braithwaite. Part 40; July, 1859. New York: W. A. Townsend & Co.

The Clinical Study of the Heart Sounds in Health and Disease. By Austin Flint, M.D., Clinica Clinice Demonstranda. From the Transactions of the American Medical Association. Philadelphia: 1859.

Some Account of a Secret Society in New York, entitled the Kappa Lambda, in a Letter to Alexander H. Stevens, M.D., LL.D., by a Retiring Physician. Shot to Dhu Glas.

Medical Communications of the Massachusetts Medical Society. Vol. IX., No. 5. 1859. Boston: David Clapp.

Sundry Papers on Medical Education. By Charles Fishback, M.D.

Treatise on the Immediate Cause and the Specific Treatment of Pulmonary Phthisis and Tubercular Diseases. By J. Francis Churchill, D.M.P. Translated from the French, by a Physician. New York: J. Winchester.

An Address on the Registration of Disease. By William C. Rogers, M.D., Green Island, N. Y.

Transactions of the Indiana State Medical Society, at its Tenth Annual Session, held in the City of Indianapolis, May 17, 1859.

Some Remarks on the Method of Studying and Teaching Physiology. By J. Aitken Meigs, M.D., &c. Philadelphia: J. B. Lippincott & Co. 1859.

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ESSAYS, MONOGRAPHS, AND CASES.

Placental Adhesion as a Cause of Hour-Glass Contractions and Protracted Labors. By Joseph Martin, M.D., of New York.

No part or appendage of the uterus demands more serious consideration, during gestation and parturition, than the placenta. Its position in the organ, its premature detachment, its adhesion and other morbid conditions, together with its final removal, are all matters of grave import, and have long engaged the attention of the leading practitioners of midwifery. Of the abnormal conditions of the placenta, and their consequences during labor, none seem to be so little regarded, and perhaps, I may add, so little understood, as those of its adhesion to the walls of the uterus. A few remarks, therefore, on that peculiarity, illustrating opinions which are the result of much experience and patient observation, may not be uninteresting to the profession.

"Parturition is a physiological process, in which wonderful and ample provision is made for favorable results, in nearly all cases; and a profound acquaintance with that physiology is the only guarantee of success, when deviations from natural labors do occur."

What, then, is the physiological process of labor, so far as concerns the relations of the uterus and placenta, in connection with the child? In a few words: When the ovum leaves the fallopian tube, it becomes attached to some part of the uterus. And, as that organ consists

almost entirely of muscular fibres, nerves, arteries, veins, and cellular tissue, the principal connection is between its muscles and the surface of the placenta. During the fœtal development, the placenta expands with the uterus, and at the full period of gestation is still attached to the muscles of that organ.

During parturient pains, the muscles of the womb, commencing always with the circular fibres of the fundus, contract in every part of the superior portion of the organ, and with the same regularity and effective force at the place of placental attachment as elsewhere; whether that attachment be to the posterior wall, the sides, the anterior wall, or the fundus. By this wise provision of nature, the vessels of the womb, at their points of attachment to the placenta, are gradually closed, without being broken, by the contractile power of the surrounding muscular texture. This part of the process has been graphically described by Sir Charles Bell, who says: "The placenta, when it is attached in a regular circle to the fundus, cannot be partially or bodily separated, until the uterus be permitted to have a great degree of contraction by the delivery of the child; the circular muscles of the fundus being agents in a double capacity, that is, both in expelling the child and constringing the vessels."

As the labor progresses, the constringing fibres diminish the size of the blood-vessels and sinuses, and the *bruit de soufflet* is altered. The rasping or sawing sound diminishes in harshness and loudness; and the drone, mentioned by Dr. Kennedy, is less distinct. This may be easily explained if the opinion of Dr. Corrigan, of Dublin, be correct, that "the *soufflet* is caused by currents of blood passing from narrow orifices into wider tubes, as in some forms of aneurism."

In all physiological labors, too, the umbilical cord, being forced down with the other contents of the womb, preserves its normal form, so that the fœtal circulation and nutrition continue at the close of parturition, as perfect as at the beginning.

In natural labors there is also a uniformity of shape and of position of the uterus and its contents, at each stage in the progress of the child's head through the pelvis. In the earlier part of the first stage, when the occiput, in the first position, is about to sink beneath the brim of the pelvis, the whole organ presents to the eye, and to the careful manipulator, a uniform ovoid tumor, no part more depressed or more prominent than any other. The same is observed when the head passes into the pelvis, except that the uterine tumor is brought more forward, and is more globular. When the occiput is under the arch of the pubis, the same regularity of form is preserved. In

no one of these different stages will the form of the tumor, during pain, indicate the place of placental attachment.

We will now notice the changes produced by a morbid adhesion of the placenta during parturition. The pathology of the diseases of the placenta is still an open question. Brachet asserted, twenty-five years ago, that all the changes observed in that organ were the results of inflammation. Cuveilhier, who followed him, referred these diseases to hypertrophy, atrophy, hydatids, apoplexy, ossification, and especially to inflammation; while Dr. Robert Lee denies that inflammation has any connection with them, and disputes the existence of fatty degenerations, so much insisted upon by Dr. Barnes and other distinguished accoucheurs as a frequent cause of abortions. Dr. Barnes is of the opinion that, "in true placental adhesion, there is organic change of structure, or abnormal deposit in the decidual portion of that organ; while, in more frequent cases, the adhesion is merely the result of ineffectual contractions of the uterus." Dr. Simpson, on the contrary, has, in my opinion, satisfactorily shown that all morbid, firm connections of the placenta with the uterus, whether partial or complete, are the results of inflammatory action. He says: "The intimacy or strength of morbid adhesion between the placenta and uterus is liable to vary greatly, according to the degree of acuteness of the inflammatory action which has produced the effusion of coagulable lymph, and the length of time it has been deposited. Occasionally, the lymph assumes a fibrous, tendinous, or calcareous appearance." It may be added, that Morgiani, and other writers on morbid anatomy, state that portions of the placenta are sometimes, but *very rarely indeed*, so firmly attached that they cannot be separated, either by the hand during life, or by maceration or by the knife after death.

But, whatever may be the pathological condition of the adherent placenta, it is evident that the connection must be between its surface and the uterine muscles. For there can be no morbid condition of the circulation on the part of the uterus—no local error of secretion in the uterine membrane—no abnormal accumulations about the fœtal tufts. Because the firmest adhesion is found in the healthiest females, carrying to the full period of gestation the largest and best-developed infants. It is also well known that, in such cases, the muscles in connection with the adhering placenta readily contract when the separation is made. It follows that, during the entire process of parturition, the muscles of a portion of the organ are firmly held by a completely adherent after-birth, in the same expanded state in which they were when the labor commenced.

Let us consider, for a moment, what must be the effect of such a morbid condition upon the contracting organ, and we shall find that, as a natural compensation, the remaining three-fourths of the uterine muscles will be excited to undue action in their efforts to expel the child. The nervi-motor power of all the fibrous tissues of the organ will be concentrated in a part, while an inert mass impedes their action at every effort. Hence, as I shall presently show, the irregular and inefficient pains, the so-called "spasms;" hence the lingering, protracted labor and consequent exhaustion of the mother; hence the partial contractions of a portion of the circular fibres, found after labor when the adhesion is below, and the hour-glass contraction found when it is near or at the fundus.

I have not yet been able to find in European books or periodicals any satisfactory explanation of partial or hour-glass contractions of the uterus; neither have I met with a single foreign writer who has hinted at the possibility that these abnormal conditions of the organ have any such connection with the adhesion of the placenta as cause and effect; although they are often described as being found, in some way, associated together; while all admit that such contractions are of great importance, because they involve more or less danger from hæmorrhage.

It will therefore be sufficient to say that hour-glass and other irregular contractions of the womb are considered by nearly all systematic writers on midwifery as "irregular or spasmodic uterine contractions, occurring after labor," as will be shown by the following extract from Dr. W. T. Smith, one of the most recent authors. He states that "in these cases, *after the expulsion* of the child, and even of the placenta, there is a double departure from a physiological condition of the uterus: there are both spasm and inertia. The contracted part of the uterus leaves the other portions relaxed, so as to admit of the flow of blood from the mouths of the vessels on the inner surface of the organ. In this way, one lateral half of the uterus will be contracted, while the other half will be relaxed. Such irregular contractions depend upon excessive nervi-motor action, which may be induced by any of the causes of acute, irregular, or tardy labors." And he adds: "Perfect hour-glass contraction is of rare occurrence, but it most generally occurs *after* rapid parturition." I have met with one English writer who is not satisfied with the prevailing opinion as to the cause and effects of these abnormal uterine contractions. Dr. Richard Hodges, of London, who published, in 1851, upward of 1,000 cases of labor, considered with especial reference to the hour-glass

contraction, professes himself "unable to give a satisfactory reason for its occurrence."

An opinion, however, generally prevails among American obstetric practitioners that hour-glass contractions cannot take place in the absence of placental adhesion. But I have seen no attempt to explain the manner in which they are produced, except in Dr. Charles D. Meigs' Treatise on Midwifery. "I cannot conceive," he says, "of an hour-glass contraction independently of a preternatural adhesion of the after-birth to the womb. *I suppose*," he adds, "that when the after-birth is so firmly attached that the contractions of the womb cannot slide it off, the substance of the placenta acts as a soft splint, counter-extending the utero-placental superficies. The rest of the womb, having nothing to antagonize it, contracts as usual, leaving the placenta shut up in an upper cell."

I have long entertained the opinion, based upon analogy and observation, that abnormal uterine contractions, found after delivery, are produced, in some way, by an energetic action of those muscles that aid in expelling the child. I considered the generally-received opinions, to say the least, exceedingly indefinite and unsatisfactory; and believed that obstetric writers employed the terms "spasm and inertia" in reference to the uterus, without reflecting that neither spasm nor inertia can exist in that organ in the absence of some abnormal condition of its muscular fibres.

Impressed with the practical importance of these views, I have endeavored to confirm their correctness by facts that could not be controverted; but, until recently, in vain.

I will *now*, however, adduce evidence to *prove* that all contractions of the uterus, above the os, which are found tonic and persistent *after the expulsion of the child*, whether the placenta may have been thrown off or not, *existed before delivery*, and are the results of an undue action of a portion of the muscular fibres, in their efforts to expel the child; that the irregular action is induced by the greater or less inertness of a part of the uterine muscles, consequent upon their partial or complete adhesion to the placenta; that, in all cases of placental adhesion, irregular uterine contractions must take place during parturition, whether they be found after delivery or not; that labors attended by such abnormal conditions of the uterus and placenta are more or less protracted; and that those morbid attachments are more frequently the causes of dangerous hæmorrhage, before and after delivery, than is generally supposed.

As a proof of the correctness of these views, I will relate, as

briefly as is consistent with a proper understanding of the subject, a case of hour-glass contraction of the uterus, and two of partial contraction of that organ, which have recently come under my notice.

On the 3d of February, 1858, at 3 P. M., I was called to see Mrs. G., residing in Brooklyn. She was at the full period of gestation, with her sixth child. Age, 27 years; general health good; pelvis well formed; temperament nervo-sanguineous. She had some pains; but, as there was no presental tumor, and the os uteri not open, I left her for eight hours. On my return, at 12, there was still no presentation. The os uteri received the finger, but no part of the child could be felt, although what she called labor-pains continued during my absence. On examination of the child through the abdominal and uterine parietes, I found the face turned downward, over the pelvis, with the os frontis resting upon the brim, above the left acetabulum, and the fundus uteri far over to the right side of the abdomen; in which position, she told me, it had been for a number of weeks. This was caused, no doubt, by the weight of the placenta, which I found to be at the fundus. By long-continued efforts during pains, with one hand under the fundus and the other over the occiput, the head was made to partially enter the brim of the pelvis.

At 6 A. M. on the 4th, the os uteri was relaxed, and open to the size of a quarter of a dollar. The fundus continued to incline, more than usual, to the right side. The occiput could be felt above the brim, and the left shoulder above the pubis; the fœtal pulsation was distinct; the placental *soufflet* was unchanged, and was spread over a large surface of the fundus.

At 8 P. M., twenty hours after the commencement of labor, the pains became irregular, both as to force and interval, and very inefficient. There was, occasionally, a forcing pain; at other times, as the patient lay upon her back, the uterine fibres would slowly raise the loaded fundus from its position at the side, and draw it over the pelvis for an instant, when it would fall back as if it were an inert mass. Again, there were violent muscular efforts, apparently spasmodic, which had little or no effect upon the fundus. Chloroform was used, but, after giving it a fair trial, it was discontinued.

At 11 P. M., as she was sensible of the inefficiency of her pains, although she described them as exceedingly "severe and cutting," she became alarmed. Some delirium, with other unequivocal signs of convulsions, being observed, I bled her from the arm, and used the cold douche freely. By these means she was composed, fell into a

sound sleep, and continued to rest, with only an occasional slight pain, for ten hours.

At 12 M., the 5th, thirty-six hours after the commencement of labor, the pains were regular, and apparently forcing; but they had very little effect upon the child. The uterine tumor looked longer and larger than it did the day before, and seemed as if it were imbedded in the intestines. The fundus was still hard and round, without any change in size. The *bruit de soufflet* was as loud and as distinct as it was at the beginning of labor. The middle zones were more irregular, and softer than usual. When examined with the hand, fluctuation was sometimes perceptible; at other times, tympanitic sounds could be heard; and at others, auscultation detected a gurgling sound. These peculiarities were observed on the anterior as well as on the lateral portions of the organ, during pain, as well as in its absence.

During the next eighteen hours, no important change could be perceived; and she seemed to be doing very well until 6 A. M., on the 6th, when she became excited and discouraged. Cold water was promptly and freely used, and appeals were made to her courage and resolution, and she was reassured. As the pains, however, were irregular and inefficient, I proposed to operate; and encouraged her by the promise of a safe and speedy delivery, together with the possibility of saving her child, which she knew was still alive. I then sent for a physician in the neighborhood, (Dr. Davis,) who came, and assisted me with tact and judgment.

After she was placed under the influence of chloroform, I proceeded to operate; but found that the blade of the forceps could not be passed between the parietal bone and the pubis without doing injury to the soft parts. The right blade of the forceps was then passed over the occiput, and the head was brought down, with the assistance of pains, until the vertex was near the arch of the pubis. On introducing the fingers, with the intention of delivering at once, I found the child still alive. As the soft parts offered no impediment, and as there is, during labor, no unequivocal diagnostic sign by which we can decide that the funis is around the child's neck, I waited a few minutes, for the purpose of observing the effect of one or two pains, and giving the infant one more chance for life. Finding that the head did not advance, I applied the forceps, the right-hand blade passing under the ramus of the right ischium, and over the right ear. When the head was delivered, the umbilical cord, now stretched to a

smooth, flat, tape-like string, without pulsation, was entwined about the child's neck, effectually strangling it.

After dividing the cord, I held it in the left hand, while the right was placed upon what I thought was the fundus uteri. But, finding no contraction, and seeing bright, florid blood flowing in a stream from the vagina, I at once introduced the hand into the uterus. The cord guided me to a round, central opening, just large enough to receive the points of three fingers. The hand having been cautiously pressed through the opening, was inclosed within a flattened globe or spheroid, by a firm grip of the contracted muscles upon the wrist. To the upper concave surface of this globe a circular placenta was firmly adhering. The thinnest part of it, at its periphery, had been turned inward, and formed the inner surface of the globe at its greater diameter. That peripheral portion had been separated from the uterine blood-vessels, from which the blood flowed upon my fingers. With the left hand upon the fundus, which was now pressing against the right ribs, the adhering mass was carefully peeled off. The right hand, grasping the placenta, was then gently rotated upon the central surface, while friction and pressure were made externally by the other hand over the same part. Contraction immediately commenced, and the flooding ceased. As the contracting circular muscles forced the hand, with the placenta, towards the hour-glass contraction, it relaxed, and, receding from the wrist and hand, it disappeared, as the upper part of the organ assumed its normal concave form. The entire organ now contracted, and very soon expelled the hand and afterbirth into the vagina, from which they were at once removed—fifty-seven hours after the head had been directed into the superior strait. She experienced no uterine or peritonitic derangements, and had a good, though slow, recovery.

In this case, the circular fibres of the fundus uteri could not have aided, in the slightest degree, in forcing the head of the child into the upper strait, for they did not follow the breech; nor did they contract, for the blood-vessels which they surrounded were not constringed, as the *bruit de soufflet* remained unchanged thoughout the whole process. But the history of the case, and all the attending circumstances, *go to prove* that the circular uterine fibres, which were free to act near the periphery of the placenta, contracted slowly around the breech of the child at every pain, until they formed a new fundus, or a substitute for the natural one, which, acting in connection with the muscles of the lower part of the organ, made efforts to expel the child; and that a deep circular sulcus or depression, occupied by

intestines, was thus formed in the walls of the uterus, between the nates of the child and the globular apartment containing the placenta.

That this hour-glass contraction could have taken place during, or after the delivery of the child, is *simply impossible. First.* Because the edges or peripheral parts of the placenta were separated from the uterine blood-vessels, which must have been effected during labor by the contractile power of the free muscular fibre, near that body; for blood in large quantities came with, and followed the child. *Second.* Because the extraction of the child occupied but a few minutes, and the hand was passed up to a firm band of contracted muscular fibres in less than one minute after. *Third.* Because the softness and fluctuation, the gurgling and tympanitic sounds, which could have been caused only by the presence of the intestines, and which were found on the anterior as well as on the lateral portions of the uterine tumor, were repeatedly observed for hours before delivery. The abnormal condition of the uterus must, therefore, have been slowly produced during labor; so that it may safely be asserted that, in this case, the placental adhesion was the cause of the protracted labor, and of the hour-glass contraction.

For the history of a similar case of placental adhesion and hour-glass contraction, in a subsequent labor of the same lady, after an interval of fifteen months, see the last July number of this journal.

But it is not in all cases that lingering labor attends placental adhesion and complete hour-glass contraction. For in a pluripara case, with a large pelvis, strong muscular fibres, and comparatively small child, there would be a quick labor, although the muscles of the fundus might not act. Because the contraction of the circular fibres below the adhesion, which I contend are brought into action as a substitute, would be sufficient to expel the child in a few hours. Mrs. G's case would have ended favorably to the child, and without instrumental aid, in the absence of all complication with the cord, but could not have been a rapid labor. Whether such cases are lingering or not, is, however, of very little practical importance, as complete hour-glass contraction is of rare occurrence. Dr. Richard Hodges, in reporting his 1,000 cases of midwifery, records but two marked by that peculiarity. Professor Barker, of this city, has kindly permitted me to state, that in upward of 2,000 cases of midwifery, of which he has had the management or control during the last seven years, he has met with but three true hour-glass contractions. In the course of a practice of twenty-five years, with especial attention to midwifery, the writer has met with only one case of the kind. Doctors

Hardy and McClintock state, that in treating 6,634 women, delivered in the Dublin Lying-in Hospital, from January 1st, 1842, to January 1st, 1845, they met with only "one instance in which hour-glass contraction of the uterus was the cause of the placenta being detained."

Still, it has been proved by the history of Mrs. G's case, that when there is a firm adhesion of the placenta to the circular muscles of the fundus uteri, rendering them perfectly inert, the other muscular fibres of the organ are brought into requisition at the period demanded by nature; and that they then supply the place of the inert fibres in a most wonderful manner. It may, therefore, be safely inferred that, when a placenta is thus planted upon any other part of the organ, a similar effort of nature will be made to accomplish the same end. It is in such positions that this abnormal condition of the after-birth is a fruitful source of tediousness and danger, as I shall now proceed to show.

The result of the observations of Ritgen, Carmichael, Naiglae, and Dougherty is, that the average proportion of placental attachments to the os uteri is 2 per cent.; to the fundus, 3 per cent.; to the anterior wall, 5 per cent.; and to the posterior and lateral walls, 90 per cent. Ritgen found, on examination after delivery, in 100 cases of midwifery, that the membranes were broken at *the edge* of the placenta in 22 cases; and at one inch from the placental edge in 8 cases. In 50 cases, the greatest space between the os uteri and the edges of the after-birth was 4 inches. In 90 cases, that space was 6 inches; and in 100 cases, the greatest space between the os uteri and the placental edge was 8 inches.

These statistics explain the infrequency of perfect hour-glass contractions of the uterus; for it is evident that they cannot occur above the cervix, unless the placenta is adherent at or near the fundus. They also show that in every 100 cases of midwifery, there are 90 in which the placenta will be attached to the posterior or lateral walls of the womb, below the fundus, and within six inches of the os uteri.

Adhesion of the placenta is either perfect, as in Mrs. G's case, or it is partial. When it is partial, a part of its lobules may be firmly adherent, while the others are physiologically attached; or the whole mass may adhere imperfectly.

I contend that when there is, during labor, a perfectly adherent placenta on the posterior, or on either of the lateral walls of the uterus, the nervi-motor power of the other three-fourths of the organ is taxed to perform the office of the whole. Because, in such a case, pains are felt, the uterine tumor is lessened in size, the child advances,

and in most instances, if there be no interference, it is expelled from the womb. But after delivery no contraction of the uterine muscles can be found at the place of placental adhesion; they are found in the same expanded state before the adhering mass is artificially removed that they were at the beginning of parturition. For the *bruit de soufflet* is unchanged, and the mouths of the uterine arteries in connection with the placenta are not constringed by the encircling fibres; while the unrestrained muscular fibres in almost every other part of the organ are found in a state of abnormal contraction.

If such be the pathological condition of a completely adherent placenta during parturition, and such the cause of abnormal uterine contractions, the consequences will be an irregular form of the uterine tumor during pains, and after delivery; the absence of all change in the placental *soufflet;* irregularity in the action of the fundal muscular fibres; a tonic semicircular contraction, in most cases, of the muscles opposite to and near the adhesion; often, a circular contraction of the fibres below the adherent mass; and a lingering labor, attended by more or less hæmorrhage. In some cases, however, the uterine muscles that are excited to irregular contraction during labor, relax soon after delivery, and no tonic contraction is found when the hand is introduced; while adhesion continues, and some flooding ensues, consequent upon a partial separation.

The same results attend the two forms of partial adhesion, except that the labor is generally less lingering, and there is greater danger from hæmorrhage. When the entire surface of the after-birth adheres imperfectly to the posterior, or either of the lateral walls of the organ, it is not infrequently thrown off in a mass at the close of labor, by the action of the free muscular fibres; then is found the *half* hour-glass contraction, described by Dr. W. T. Smith, and dangerous flooding occurs. When such an adherent placenta is at the fundus, it may be separated *in the same manner*, and retained after delivery, by a *true* hour-glass contraction. This was the case in one of the labors with hour-glass uterus reported by Dr. Hodges. If one or more lobules of the placenta morbidly cling to the surface of the uterus, while the others are slightly adherent, or normally attached, the latter will often be thrown off by the irregular contractions; and blood before, or at the moment of delivery, will freely flow from the vessels left open by the separation.

That there are many lingering labors, even in pluripara cases, when the condition of the patient and all the attendant circumstances justify the expectation of a safe and speedy delivery, is proved by the records

of medicine, and the general experience of obstetric practitioners. It is also equally true, that such cases are generally attended by hæmorrhage, before or after the extraction of the after-birth, which often requires to be artificially removed; and that, when the hand is introduced, more or less of what is called spasmodic contraction of the organ is found. That the so-called spasmodic contractions do nearly always attend such cases, is proved by the experience of Dr. Burns. After describing the circular bands of contracted fibres, found after labor, at the upper part of the cervix, and similar "bands higher up, grasping the placenta," which he properly thinks "are very inaptly called hour-glass contractions," he says: "If I did not know the hazard of establishing a general rule, I would say that in almost every instance this contraction takes place. I have rarely introduced the hand, in a case of flooding, without meeting with it, whether the placenta had or had not been expelled."

The importance of these facts is obvious; and if the point for which I contend—that placental adhesion is the cause of hour-glass contractions—be established by the observation of others, the subject will be placed before the profession in a clear and certain light. The source of the frequently-occurring post-partum hæmorrhage which is the cause of so much anxiety to the obstetric practitioner, will then, except in purely anæmic cases, admit of ready explanation. And when experience has proved that the fear of injuring the womb by the introduction of the hand is groundless, a prompt removal of the after-birth will insure safety to the patient in nearly every case.

I could refer to a number of cases of partial placental adhesion to illustrate the position I have taken, but shall confine myself to the most recent. On the 7th of March last, at 1 P. M., I was called to see Mrs. F., of New York, in labor with her first child. Age, 24 years; health, good; pelvis, well formed; temperament, sanguineous; pains, regular and effective; os uteri, open to the size of a quarter of a dollar; fœtal pulsation, distinct; placental *soufflet*, at the posterior wall of the uterus. Ten P. M., the os uteri relaxed, and two inches in diameter, the pains regular, and every indication of a favorable result. At five P. M. the 8th, sixteen hours after commencement of labor, the pains were very severe, frequent, and irregular; the os uteri was well open, and relaxed; the head was down upon the perineum, but did not advance with each pain. Mental excitement ensued. She declared it was impossible to endure the pains. Chloroform was used, but with only temporary effect. When not under the influence of the remedy she would rise, and throwing herself forward upon the bed,

would endeavor to press the uterine tumor against its edge. Yet the pulse did not increase in strength and frequency. She was with difficulty prevailed upon to bear the pains patiently until medicine could be procured. I gave her 25 min. of tinc. opii., ¼ gr. of tar. antim., and 3ss. of nit. ether, every hour, until the desired effect was produced. She was soon composed, and rested, with occasional sleep, for nine hours. At 3 P. M. the labor-pains returned, and in three hours she was delivered; thirty-one hours from the commencement of labor.

During the last three hours of this labor the placental *souffle* was unchanged, as it had been from the beginning, and the uterine tumor was irregular in form, and thrown more forward than usual. At the moment of delivery, a quantity of blood was thrown off from the vagina. A hand was placed upon the abdomen to excite the fundal muscles, but without effect. I waited two or three minutes, but as flooding continued, and as I had reason to think that the placenta was adhering, I introduced the hand, and found a firm semicircular contraction opposite to the placenta. The upper part of that body adhered to the uterine surface; the lower portion was thrown off, and from that part of the organ the blood was flowing upon my fingers. When the adhering portion of the after-birth was peeled off, and the hand carried to the fundus, its circular fibres contracted, the hæmorrhage ceased, and the whole mass was removed.

In this case about one-third of the placenta, the part near the fundus, was adhering firmly to the wall of the uterus. The other two-thirds must have been separated before delivery, for the labor at its close was rapid; there was very little pulsation in the cord; the child was perfectly blanched, threw out blood from its mouth, and lived only ten hours. The muscular fibres of the anterior and lateral walls of the womb were found in a state of firm contraction. Did this contraction take place during the two or three minutes that elapsed between the birth of the child and the introduction of the hand? Or was it the result of the contractile power of those muscles slowly acting upon the child during the process of parturition, and upon the placenta also, grasping it until a part was forced from the uterine surface? That the muscles of the posterior wall of the organ, the place of the placental attachment, had not contracted, so as to aid in effecting delivery, is evident from the fact that they had not constringed the uterine blood-vessels at that part. That the head of the child was impelled through the pelvis by a "vis a tergo," is equally evident; and that force could be no other than the nervi-motor power

of the unrestrained muscular fibres, which were found after delivery in the contracted state that they would naturally assume in accomplishing the end which, in a physiological labor, would have been effected by the muscles of the fundus.

During the last few days I have met with a case of placental adhesion and irregular uterine contractions similar to the above, but attended by very peculiar circumstances. On the 21st of April I was called to see Mrs. L., residing in New York, the mother of seven children. She was at the close of her sixth month of pregnancy; aged 39 years, with good general health, but large from extreme obesity. Three days before I saw her she had taken a very long walk. I found her suffering severely with marked symptoms of enteritis, and occasionally pains, which she described as "bearing down like after-pains."

For the first forty-eight hours I treated her for the enteritis, during which time the uterine contractions continued. At 9 A. M. on the 24th, I called in Dr. Joseph S. Perry to see her. As there were no unusual circumstances attending the labor, our attention was directed principally to the bowels. At 3 P. M., the os uteri being well open, I ruptured the membranes, and seven hours after delivered her of a living fœtus, which gave one faint cry, and expired in a few minutes. After-pains, with flooding, followed. I endeavored for ten or twelve minutes, but in vain, to deliver the placenta by gentle traction on the cord, and friction, with pressure upon the fundal muscles. Two fingers were then passed into the vagina, and a portion of the after-birth was found hanging loosely, just within the os uteri. Four fingers were then introduced into the womb, when they came in contact with a circular band of contracted uterine fibres, which retained the upper half of the placenta in a chamber above; while the lower half was separated from the posterior wall of the organ, from which blood was flowing.

As I had never introduced the entire hand into the uterus at six months, I hesitated. But when I considered her illness for the three previous days, her lingering labor, her great prostration, the relaxed os uteri, and the copious flooding, I decided to operate. The hand was then cautiously introduced into the uterus. The points of the fingers passed up over a portion of adhering placenta until they reached the apex of a cone formed by the irregularly-contracted muscles of the fundus, while the back of the hand was grasped by the contracted fibres. The adhering part was then carefully removed by beginning at its upper point, the right hand being placed at the same time upon

the abdomen. The contracting fundal muscles then followed the hand, and effected delivery. During her recovery I could discover no evidences of unusual uterine irritation.

Comments upon this case are unnecessary, for every physician can decide for himself whether or not the tonic contractions were the result of irregular uterine action during parturition, induced by placental adhesion. I shall also leave it to the members of the profession to judge as to the propriety of removing the placenta by the introduction of the hand into the uterus at so early a period of pregnancy; while, at the same time, I would not hesitate to repeat the operation under similar circumstances.

As to the time when the placenta should be removed in these cases—a matter of vital importance—we find that most of the European obstetric practitioners still cling to the old rule, that is, "to wait." Hardy and McClintock, the latest writers on the subject, state that Dr. Robert Lee gives only one hour, but says it is usual to wait two hours. They also, in common with most other transatlantic accoucheurs, have a dread of doing injury to the uterus by introducing the hand into the body of the organ. For they say: "Of all the causes necessitating the artificial removal of the placenta, its morbid adhesion is, perhaps, the most unfavorable." In this country, however, such views are not now generally entertained, and many physicians have formed an opposite opinion, and adopted a very different practice. Dr. Meigs says, in his Treatise on Midwifery, that "the indication of the hour-glass contraction is, *perhaps*, to deliver at once," and advises "the student to separate as soon as he can clearly determine its existence." And I may venture to assert that the usual practice in the city of New York is to remove an adherent placenta as soon after delivery as circumstances will possibly permit. All that is wanted in such abnormal conditions of the uterus is a physiological action of the circular fibres at the fundus, and the contraction of the organ to a small hard ball at the pelvis. But in cases of flooding, caused by placental adhesion, it is useless to excite irritation upon the surface from which the blood is flowing, unless it be at the fundus; to employ force upon the contracted band, with the view of relaxing the fibres, is worse than useless, for it is replete with danger. When the circular fundal fibres are made to act by gentle friction upon them, with the hand grasping the afterbirth, these difficulties, so much dreaded by accoucheurs, will vanish.

Whatever may have been the experience of others, I have not found any difficulties to attend or to follow the *immediate removal of the placenta* in such cases, although I have adopted the practice for a

number of years. In Mrs. G's case, notwithstanding the exhaustion that followed her labor of 57 hours, her uterus contracted to the shape and position mentioned above, and continued in a normal state throughout her recovery.

The following practical inferences may be drawn from the above facts and views:

First. As it is the duty of the attending physician in every protracted labor to ascertain the cause of delay, he should know, if possible, whether there be placental adhesion or not. I find it can be diagnosticated by auscultation, and by attention to the form of the uterine tumor, and to the action of the circular fundal muscles. If, after repeated trials, made as the labor progresses, no change can be perceived in the distinctness and loudness of the placental *soufflet;* if the muscles of the fundus do not act at the beginning of each pain, and contract regularly throughout its continuance; if, during pain, the uterine tumor does not present to the manipulator a globular form, but is more prominent than usual at the place of placental attachment; if these symptoms be accompanied by irregular and inefficient pains; if there be a relaxation of the os uteri, in the absence of pelvic or other difficulties; and if the labor be lingering, it will be safe to conclude that the placenta is adhering to the walls of the uterus.

Second. The danger from hæmorrhage, which attends almost every labor with placental adhesion, calls for the most careful and constant attention on the part of the practitioner. Nothing but a prompt removal of the whole mass, and a firm contraction of the womb, will insure the safety of the patient. If, therefore, there be any symptoms during a labor that indicate a firm connection of the whole or a part of the after-birth, it should be detached after delivery, and removed without waiting, whether there be visible hæmorrhage or not. Expelling pains will only add to the irregular contractions, and increase the difficulty of its artificial removal.

Anti-partum hæmorrhage may also occur. For one or more lobules may morbidly adhere, while the others are thrown off by the contractile power of the free uterine muscles, in which case urgent symptoms would soon demand a speedy instrumental delivery. Ergot is totally inadmissible in this emergency, because it would increase the abnormal contractions, without having any power over the fibres surrounding the patulous mouths of the bleeding blood-vessels.

Third. When it has been satisfactorily ascertained that a labor is attended by placental adhesion, not complicated with other difficulties, the safest practice to mother and child, in most cases, is to depend

upon the "vis medicatrix naturæ." If, however, there be good reason to believe that the labor is protracted *solely* from the want of regular fundal and other uterine contractions, consequent upon such an adhesion, the life of the child may be preserved, and the safety of the mother more effectually secured, by a timely and cautious use of the vectis, or of one or both blades of the forceps; provided the condition of the os uteri and the position of the head are favorable.

May, 1858.

Case of Diphtheritic Inflammation of the Kidneys—Uræmia—Leucæmia—Obliteration of the Femoral Veins—Abscess of the Knee-Joint, and Purulent Infiltration of the Thigh. By Professor Louis Bauer, M.D., Member of the Royal College of Surgeons, England, Licentiate of the State Medical Society, etc.

Ernst S., a German tailor, thirty years of age, was brought, on the 2d of April, 1859, in an unconscious condition, into the Long Island College Hospital, and placed under my charge.

Little information, as to the history of his case, could be collected. The patient had been in his usual feeble health, when he was suddenly attacked with facial erysipelas, which affection had been of moderate extent and character. But very soon a low delirium set in, which of late, however, had become periodically so violent and troublesome, as to render his removal to a public institution imperative.

On clinical examination, the following conditions were recorded: S. is a man of medium size, with a frail and delicate constitution. Various cicatrices connected with the bones of his right foot and leg, as well as a deformity of the former, evince previous suffering of the patient from *caries*.

The erysipelas of his face is passing off, and desquamation has already commenced. The color of his skin, and especially that of his face, is unusually pallid, with a yellowish tint. The temperature of his body is rather lowered than otherwise; pulse 105, (4 o'clock, P. M.,) and rather small, feeble, and soft. The action of the heart almost normal, although slightly enfeebled, with the exception of a moderate blowing sound accompanying the systole. Head cool, and no signs of congestion; sclerotica of the eyeballs exceedingly pallid, and the expression of the eyes glaring; pupils readily reacting; mucous membranes of nostrils and mouth, pale and moist; tongue clean, and the patient indifferent as to food or drink. Abdominal cavity neither sensitive nor distended with gas; urine retained, and the bladder distended. There is some sensitiveness over the lumbar region. Respi-

ration moderately accelerated, otherwise normal. Vital powers prostrated, with marked muscular tremor, and a passive and apathic position. The urine being withdrawn by catheter and subjected to a careful chemico-microscopical examination, revealed a moderate quantity of albumen, and but few traces of urates, besides epithelial and diphtheritic casts, blood-corpuscles, and numerous solitary epithelial cells with fat granules.

These clinical facts rendered the diagnosis both clear and easy, which was set down as diphtheritic inflammation of both kidneys, with a moderate degree of uræmia, and the result of the treatment verified in every respect my opinion. My prescription consisted of the administration of carbonate of soda, and cups upon the lumbar region.

During the subsequent night, the patient enjoyed but little rest; he was delirious, but not violently so. Towards morning, he had a few hours' sleep, from which he awoke rather improved. The febrile excitement and the muscular tremor had evidently lessened, and the sensorium was less obscured. There is still albumen in the urine, with the microscopical elements before mentioned.

I should have previously stated, that the patient's domestic habits had been every way temperate and orderly, and that, therefore, his case could not have been set down as delirium tremens, which, in some respects, it obviously resembled.

Treatment continued, and light but nutritious diet allowed.

April 4.—Patient has rested well; sensorium almost free, and muscular tremor decidedly lessened. Pulse, 88. No soreness of any account over the kidneys; albumen in urine decreasing. State of vital powers low. No other changes. Treatment as before.

In this ratio the patient progressed steadily up to the 11th of April, so as to be fairly considered convalescent. About this time, however, a new phase commenced. After an unusually restless night, the patient complained on the 12th of April of soreness and swelling of the left knee-joint. When examined, the joint was discolored, the synovial sac distended by a considerable quantity of liquid, and was painful both on touch and motion.

The reaction of this new trouble upon the system was but moderate, and the coexisting febrile excitement mild. This was evidently an abscess of the articular cavity. Its remote causes could not be ascertained at the time, despite a most searching examination. When the abscess formed, the patient was in a fair way of recovery, and all his vital functions were in a comparatively good order. He was, moreover, under the use of iron and a generous diet, both of which told

favorably upon the anæmic state of his blood. My next suspicion was directed to the blood-vessels of the interested extremity, but neither phlebitis nor obstructions by thrombus or embolus could be discovered; nor did the patient complain of pain, tension, or uneasiness, beyond the anatomical limits of the joint itself. No other remote cause for the formation of the articular abscess seemed to be feasible than *spontaneous pyæmia*, for which, indeed, the vitiated hæmatosis of the patient gave the best pretence. At any rate, the general character of the disease was duly acknowledged, and tonic, restorative treatment and diet were systematically observed. Mindful of the old surgical principle, "*Ubi pus, ibi evacua*," a principle that has gained in strength by the very latest microscopical research as to the proximate generative sources of pus, I decided upon the withdrawal of the articular contents. The operation was performed upon the *cul-de-sac* of the synovial membrane, above the external condyle of the femur, the extremity being previously extended, and the matter pressed towards the point of puncture. Thus, the matter was removed from the articular cavity without air having the slightest chance to enter.

Its quantity amounted to nine fluid ounces, and was not homogeneously mixed, but consisted in part of pus, and in a large proportion in perfectly transparent synovial fluid. The knee-joint was then surrounded with adhesive straps, and the entire extremity safely placed in a straight iron splint, well padded with cotton.

That the pus was clearly of recent origin, was subsequently ascertained by the microscope, exhibiting, as it did, numerous and very large mother-cells, besides solitary pus and epithelial cells and granules. Moreover, it evinced no smell or other signs of decomposition.

This proceeding relieved the patient materially, and secured to him for the four subsequent days rest and comfort. The joint, however, having rapidly filled again, had then to be punctured a second time, when a large quantity of purulent and homogeneous matter was withdrawn. Its quality was mild, without disagreeable odor, and of the ordinary microscopical elements. On motion, the joint manifested no crepitus. I had not discovered until this time a firm cord accompanying the femoral artery from the knee-joint upward to the inguinal glands. The artery, however, pulsated throughout its entire course. The inguinal glands commenced just then to swell, and to indurate. The large saphena vein was perfectly permeable, and to all appearances intact. The forementioned cord seemed to have a width of almost an inch, was painless, firm, and unyielding on pressure. According to the anatomical position of the cord, it could be either one

or both femoral veins, or the lymphatic vessels accompanying the femoral artery, but the size seemed to exclude the probability of the lymphatic vessels being inflamed and obstructed. The conclusion I arrived at, after a careful analysis of all the circumstances, was a simple thrombosis of the femoral veins, with interrupted circulation through their respective courses.

But few days had elapsed when a general purulent infiltration throughout the entire thigh and part of the leg, with œdematous swelling of the corresponding foot, appeared, the former requiring free incisions.

At this juncture two pathological questions offered themselves:

1. What is the present condition of the blood of our patient, and has it furnished the cause for the existing thrombosis in the femoral veins; or,

2. Have the other organs, concerned in the hæmatosis, participated in the morbid process?

Two questions of great moment, and equally difficult to solve. But for the highly important inquiries and experiments of Virchow, Julius Vogel, and others, our knowledge on these points would have been truly meagre, since we have, at least, some clue to the pathological condition of the blood in general; and however inefficient my humble efforts may prove to be, they may nevertheless tend to affirm facts already ascertained, or instigate more interest for these subtle pathological points.

It cannot surprise us that the patient, already in a most enfeebled condition when admitted, should have become still more debilitated under so copious a drain upon his constitution, aside from other functional disturbances. His appearance was indeed ghastly, all his color having completely vanished. Such intense pallor I had observed but once—in a young man, poisoned with iodine—even not after the most profuse hæmorrhages. This pallor of itself indicated a considerable reduction of the red blood-corpuscles, and a numerical preponderance of the white cells. In order to ascertain the relative proportions of those microscopical elements of the blood, I had a few drops of blood abstracted. By mistake, the House Physician had chosen the affected extremity. The blood exhibiting under the microscope almost exclusively white, granulated, and nucleated cells, rather larger than pus-cells, and more like the white blood-corpuscles, my colleague, Dr. Daniel Ayres, very appropriately remarked, that that examination could not be considered conclusive, as long as the possibility existed that the parenchymatous blood might have accidentally come in contact with

pus. I directed, for the purpose of obtaining a positive result, a cup to be applied over the cardiac region, and a sufficient quantity of blood to be withdrawn for examination. Thus, about 3 drachms of blood were procured and received in perfectly clean vessels.

In connection with this operation, it was stated that the blood had oozed out rather more freely and rapidly than under ordinary circumstances, and continued so even after the cup had been removed, so as to render a styptic necessary.

The fresh blood was then beaten, in order to separate the fibrin, and was then put aside for settling. When examined about an hour after, three distinct layers could be recognized, consisting respectively of fibrin, serum, and hæmatin.

The fibrin presented, on a gross comparison, the ordinary quantity and microscopical appearance, though rather soft, and mixed up with numerous white blood-globules. The serum exhibited numerous yellowish flakes, an immense number of extremely delicate fat-granules, (soluble both in oil of turpentine and sulphuric ether,) and other elementary molecules of a rather indefinite character; moreover, epithelial cells and beautifully-developed white blood-corpuscles, in reversed* proportion to the red ones. In fact, I saw no more than four red blood-corpuscles in any one object; nor did any of my colleagues of the medical staff of the institution.

The serum was of neutral reaction. Crystals of salts were not obtained by evaporation. When boiled, the serum coagulated readily. The sediment was of a very high and almost carmine color; it consisted of the very same microscopical elements as the serum, and exhibited *scarcely a trace* of red corpuscles, whilst the liquid presented a yellowish hue. At this place I should mention that the blood withdrawn from the left extremity differed in some of its microscopical characteristics. Firstly, its color was of a brown-red, and rather darker; its fibrin was softer, and it exhibited but an imperfect coagulation, and had more white globules than the other specimen. From these clinical and microscopical examinations, the fact of leucæmia, or the abnormal preponderance of the white blood-corpuscles, was positively established.

As ordinary causes of this disease of the blood, profuse hæmorrhages, suppuration, and more especially tumescence of spleen or liver, have been mentioned; the latter in connection with inveterate inter-

* According to Donders, Moleschott, and Kölliker, five white corpuscles to two thousand red ones is the proper proportion in normal blood.

mittent fever. Hæmorrhage as a cause had to be excluded, since the patient had never been subject to copious loss of blood. But it is not unlikely that the caries, and the attending copious discharges of purulent matter, from which he had suffered in previous years, had laid the foundation of this vitiated condition of the blood, and that the subsequent scrofulous derangements of the lymphatic and glandular system had both propagated and perpetuated the disease. For the patient clearly states that his general health had always been feeble, and his color unusually pallid.

Although the patient had never suffered from intermittent fever, yet I instituted a most careful investigation into the state of his abdominal and thoracic organs, but without finding the least noticeable morbid alterations. The liver, though slightly sensitive, seemed to be of ordinary size and quality, and the spleen, if anything but normal, was somewhat lessened in size. The lungs presented the ordinary respiratory sounds and resonance, and if there were tubercular deposits at all, they were certainly of small extent, and of no pathological account, perhaps already calcariarized. The heart-sounds were almost normal, though the systole manifested a rough, blowing sound, indicating, perhaps, small fibrinous fragments upon the semilunar valves, frequently observed in leucæmia.

As to the pathological dependence of the various morbid changes, no positive theory can be advanced. It seems, however, feasible to me, that the leucæmic condition of the blood had been the pre-existing disease of late, engrossed by the uræmic poisoning, and that the thrombosis was an accidental occurrence, chiefly resting on the increased coagulability of the fibrin of the blood.

It will be readily perceived that the case of Ernst S. bears a remarkable conformity with that form of pyæmia hitherto called spontaneous pyæmia or purulent diathesis; and but for our better understanding of the physiology of the blood, I would have been obliged to resort to the same expedient diagnosis.

As yet we possess no means, either chemical or microscopical, of discriminating between mucous-cells, white blood-cells, and pus-cells, they being almost of the same size, organization, and chemical susceptibilities. But evidently the whole mass of blood could not consist of pus-cells, and at the same time sustain life. This is obvious.

The formation of the so-called spontaneous or metastatic abscess will probably be taken by some surgeons as an evidence of pyæmia, which pathological interpretation is the only one hitherto considered feasible and legitimate. The physiological and pathological researches of the

last two years have, however, changed our pathological comprehensions, so as to revolutionize older doctrines entirely, and to replace them by new ideas, having at least the merit of a positive demonstrative basis. I should exceed by far the limits of this article were I to enter fully upon the discussion of this highly important pathological subject; but thus much I may say, that the formation of spontaneous lobular and metastatic abscess is now satisfactorily explained by Virchow's discovery of the pathological effects of thrombosis and emboli. Nor is the rapidity with which metastatic abscesses form any longer incomprehensible, since the anatomico-physiological matrix of pus has been clearly ascertained. Even the sudden purulent effusions in serous cavities have been brought within the scope of our anatomical and pathological understanding by the observations of Heidenhain. This subject being of great moment, I hope to find sufficient leisure to discuss its merits and bearing in this journal at an early time. The time, indeed, may not be far when pyæmia will be entirely exploded, as untenable and devoid of real existence. This, however, is a mere inference, drawn from the evident tendencies of the latest pathological discoveries.

I return after this digression to the patient.

May 4.—The condition of the patient is changed in but few points. His debility has materially increased; temperature higher; skin dry; pulse 136, small, weak and empty. The action of the heart greatly agitated, and the blowing sound aforesaid stronger and more distinct. Appetite and rest satisfactory; abdomen tympanitic, and inclined to constipation. Stools exceedingly fœtid, and rather pale, as if deficient in choleviridin. Urine highly concentrated, but without direct morbid elements. From the left thigh there is a fœtid, decomposed, and discolored sanious discharge of considerable quantity, containing rags of mortified cellular tissue. The obliterated femoral veins present the same condition. At this time, the blood being again microscopically examined, some change for the better was noticed. The number of red corpuscles had considerably increased, though still below normality; they exhibited, however, a crenated and wrinkled appearance, disappearing on the action of water, and moreover they evinced little tendency to join each other in the usual manner.

As to treatment, I need hardly state that the best and most concentrated food, with wine, beer and milk, and tonic remedies, were liberally resorted to, which were also continued by my calleague, Dr. John Byrne, in whose hands the patient subsequently passed.

By his kind permission, I had, a few days ago, another opportunity

of seeing and examining my former patient, who is not only still alive, but somewhat improved. The blood still contains about fifty per cent. of exceedingly pale-white corpuscles, which, however, could be clearly discriminated when a solution of iodine had been added. The suppuration still exists, but the discharge is limited to the thigh and to a small place on the leg; it is decidedly improved in quality and lessened in quantity. The venous cord is still the same, and it seems as if an obliteration of the femoral veins had been effected. The venous circulation of the extremity seems to be tolerably free, and to be obtained in a collateral way.

Although the case of Ernst S. has been brought before the profession in a rather fragmentary form, yet its scientific interest, independent of its termination, is sufficiently strong to warrant a full exposition. Bearing as it does upon the present investigation of pyæmia and the various pathologic conditions of the blood, and being a case in point, it will in some respects elucidate the subject and aid in its final settlement.

BROOKLYN, *June* 15, 1859.

SUPPLEMENT.

Since the foregoing clinical history was written, the patient has gradually sunk, and finally died, on the 6th inst. The post-mortem examination was made a few hours after death. The body was almost reduced to a skeleton, the fat and muscles being wasted. The color of the skin was pallid, with a dirty yellowish tint, indicating the highly cachectic nature of the disease. There was a large decubitus on the sacrum, exposing the bone itself to some extent. About the left knee-joint there were some fistulous openings, penetrating severally the articular cavity; and some other openings leading to large fistulous tracts along the thigh.

From the diagnosis I had been induced to form, my attention was chiefly directed to the condition of the femoral vessels, and to all those large parenchymatous organs which, according to experience, are so frequently the seat of lobular abscess. I commenced, therefore, with the left thigh. In tracing the course of those vessels with the fingers, I could still discriminate the cord which I have previously adverted to. It had the thickness of almost an inch, and was still firm and even. The adjacent parts, although thoroughly infiltrated and comparatively dense, were much softer than the cord.

I then proceeded to the cord in its full length; both vessels and the femoral nerve were found to be converted into almost a homogeneous

mass, of dense structure. The constituting parts were then dissected; the artery was found passable, and the veins, although evidently compressed, exhibited no signs of inflammation or thrombosis. The femoral nerve was exceedingly firm—almost hard. Next I traced the femoral vein upward into the abdominal cavity, when a thrombus of two inches in length was met with in the left iliac vein. The thrombus extended a short distance into the hypogastric vein, and was riding on its angle of bifurcation, being, however, not thick enough to fill the lumen of the vessel; nor was it so firmly adherent to its walls, or of so firm a consistence, as to be considered an ante-mortem formation. My diagnosis of thrombus of the femoral vein was therefore not verified.

In the popliteal space, the inguinal region, the pelvic cavity, and up to the spinal column, numerous lymphatic glands were found, and all of them in a high state of inflammatory engorgement, from which it seems that an inflammation of the lymphatics had been going on. Whether this inflammation is to be looked upon as the commencing and primary element of the disease, or whether the common sheath of the vessels was the primary structure involved, I am at a loss to determine. Evidently, however, an inflammation had been started in both these tissues, and by its products caused such restraints as to interfere seriously with the circulation through the femoral vein; whilst the artery, by virtue of its elastic coats, had to a certain degree been exempt from pressure, although its lumen had evidently been reduced, which was ascertained by comparison.

My next attention was bestowed upon liver and spleen. The former was considerably enlarged, greatly engorged, and in an incipient state of fatty disorganization; but no abscess, even of the smallest size, could be discovered, though I cut it in small pieces, that no part could escape my search. Its general condition recognized as inflammatory hypertrophy; by which I, however, wish to express the general increase of its size, in part attributable to the fatty material, whilst I am uncertain with reference to the increase of its essential anatomical elements.

The spleen was of a dark-blue color, its capsule detaching itself readily, and in a state of advanced softening, though of normal size.

Both kidneys were considerably enlarged; their capsules tore off readily; the cortical substance much congested, besides moderately pale, and granulated; whilst the medullary substance was of a deep-brown discoloration.

Under the microscope, fatty degeneration of the various epithelial

cells, partly detached, partly forming cylinders, was observed. The remaining abdominal organs presented no morbid changes.

The right lung was perfectly healthy, whereas its pleural sac was filled with inflammatory products, and the entire pleura inflamed and covered with plastic material, evidently of recent origin. The left lung presented in its apex tuberculous deposits in an advanced state of softening; and in the left side of the heart were the pathological evidences of endocarditis, the tunica intima being opaque, whitish, thickened, and covered with closely-adhering plastic material; whilst in the right side a large, though soft, fibrinous clot was found, extending from the right ventricle both into the pulmonary artery and the right auricle.

This is the summary of the post-mortem examination, from which it appears that my original diagnosis, as to the affection of the kidneys, the liver, the heart, and more especially the femoral vein, was substantially correct. If there was no thrombus in the vein, there was at least a compression of its lumen, tantamount, almost, to its organic closure. But the pathological consequences were of course different. A thrombus in the femoral vein would have most probably led to an earlier fatal termination of the disease, by embolus into the parenchyma of the liver, and lobular abscess. It is difficult, indeed, to say whether the leucæmia originated with or produced the morbid changes of either or both—liver and spleen. Virchow states, however, that tumefactions of these organs are the ordinary concomitants of leucæmia; and though this question has not, as yet, been clearly settled, yet he inclines to the srpposition of their being the *causa movens* of that disease.

If the case of Ernst S. has not been as perfectly elaborated as its pathological importance and interest certainly demanded, and if some links are wanting of the latest history of his case, it is due to my resignation from the Long Island College Hospital, and the transfer of the patient to another medical attendant. A material loss, however, has not been caused thereby, as the history of his case comprises the greater and more important portion of his disease, and the post-mortem condition.

July 16th, 1859.

Report of Cases of Diseases of Bone occurring in Bellevue Hospital, N. Y. By J. M. Farrington, M.D., Trumansburg, N. Y., late House Surgeon.

1. *Caries of the Skull.*—S. E., æt. 35, was admitted in hospital May 22d, 1858. In 1849, he was poisoned with syphilis; had chancres and indurated glands, which did not suppurate, for which he received no treatment, save local applications. About a year afterwards had a swelled testicle, which again was treated only locally. In the course of a few months had ulcerations upon the legs, then took some internal remedies; but is confident no mercurials. A few months later had ulcerations in the throat, from which he recovered under the use of iodide of potassium. A year later, had severe frontal headache, usually commencing at 3 o'clock, P. M., and continuing not more than two hours; and at the same time had nocturnal pains in the tibiæ. After six or seven months, more suppuration was established in the left temple, and an exfoliation of a piece of the left parietal bone took place. After the lapse of twelve months more, a piece of equal size, viz., one inch in diameter, was exfoliated from the posterior portion of the same bone. After the complete separation of the above-mentioned pieces of dead bone, these points of discharge healed perfectly; but they were succeeded by others, four in number, scattered over the vertex, and which remained open at the time of his admission. He had at this time a small ulcer upon the left arm, immense cicatrices upon either leg, and "soft spots" on his head, over the points where the bone had been lost. He was conscious of a marked failure in memory coming on since the trouble first appeared in the skull. The openings in the scalp communicated with extensive patches of roughened, dead bone, and on probing it carefully, it appeared as though nature was attempting the exfoliation of the external table of both parietal, and of a considerable portion of the frontal bones. The discharge from these openings was very fœtid and profuse; they were dressed with pledgets of lint, saturated in a solution of chloride of soda. Tonics and anti-syphilitic remedies were ordered. On the 3d of July he was operated upon by Dr. Wood, visiting surgeon. The patient was put under the influence of chloroform. An incision was made around the forehead high up, from temple to temple; this incision was met in the mesial line by a longitudinal incision, made over the vertex, and the scalp was dissected up, so as to expose the whole front of the calvaria, and dead bone was chiseled off from over a space two inches square; the bone was much thickened; was not at all loose, and therefore much more difficult of removal than had been anticipated; the wound

in the scalp was closed by silver sutures. A great amount of suppuration naturally occurred from the under portion of the scalp, before it became again adherent to the skull. The extent of the disease was such, that Dr. Wood did not deem it prudent to remove the dead bone at the sides of the head at the first operation. The patient passed from under my observation before the second operation, and I am not able to give the result.

2. *Necrosis of the Os Frontis.*—J. G., æt. 66, of good constitution, but of intemperate habits, was admitted in hospital October 13th, 1857. He had always enjoyed good health, and had never had syphilis. When fourteen years of age, he fell from a horse, and struck the left side of his forehead against a stone, causing a small wound through the integument, which soon healed, and he had no further trouble from it. About four years since he was run over by a team of horses attached to a sleigh. His head was considerably bruised, and he was rendered insensible for a few moments. In a few days he fully recovered from the effects of the injury, and had no further trouble therefrom. One morning in the summer of 1855, on awaking, he found that his right eye was blackened, though not swollen; but from this time it began to swell, and at the end of about ten days suppuration was established, and the abscess was opened by an incision made into the upper lid, near the inner angle, and just beneath the orbital arch. A large amount of matter was discharged through this opening, and it had never closed; matter had continued to be discharged, and the upper lid had become retracted and adherent at this point. The fistulous opening was characteristic of diseased bone. Four weeks previous to admission another abscess formed upon the centre of the forehead, which abscess was opened, and had continued to discharge ever since. He was put upon the use of tonics at the time of his admission, to improve his general health; under which treatment he continued until the 24th, at which date Dr. Wood cut down upon the diseased bone at the site of the superior opening, and removed a small portion of dead bone. Tonics, cod-liver oil, and good diet were ordered, and the upper opening eventually closed; but the discharge from the lower opening still continued. On the 23d of January, 1858, Dr. Wood operated upon this portion of the bone. An incision was first made over the orbit, and the integument reflected; the trephine was then applied over the frontal sinus, and on removing the button of bone, an abscess was discovered beneath, which communicated with the fistulous opening above the eye. The patient was under the influence of anæsthetics.

A slight inflammatory blush surrounded the eye, and extended over the forehead for several days after the operation. Tinct. ferri, chloridi, and quinia were administered, and the parts were dressed with a lotion of acetate of lead and opium. The sinus was dressed daily, with pieces of lint, in such a manner as to give the discharge free exit. The lower opening eventually closed; and the operation, novel, and important in its character, was considered very successful. In May he was attacked with erysipelas, and on recovering from it, he asked his discharge, fearing that, if he remained, he would have another attack when the disease should be prevalent in the hospital. He left the hospital on the 19th of May, and at that time the discharge from the opening made by the trephine had not entirely ceased, though it bid fair to eventually do so. Both fistulous openings, as before stated, were closed, each operation having been followed by success in removing the diseased bone, the cause of the discharge.

3. *Necrosis of Inferior Maxilla.*—Margaret M., æt. 29, came into the surgical wards March 25th, 1858. About six months previous she suffered from pain in one of the molar teeth of the right side, accompanied with pain and swelling of the lower jaw on that side. The pain in the tooth soon subsided; but the painful and swollen condition of the jaw continued until her admission into the hospital.

About four months previous, an opening was made, and matter discharged externally; this opening and discharge continued permanent.

Thre were two cloacæ, one above and the other below the jaw-bone. The lower opening was large enough to admit the end of the finger. There were also other cloacæ communicating with the buccal cavity; giving, by means of the fœtid discharge from the decomposing bone, an intensely ill odor to the patient's breath, to correct which, a gargle of a weak solution of chloride of soda was directed to be used several times a day. Her general health was good, and consequently no medication was resorted to. On the 10th of April the affected portion of the jaw, comprising about one-third of it, was removed by Dr. Wood. An incision was first made from the angle to the symphysis of the jaw, the integument dissected up slightly, when the dead bone was readily seized by a pair of strong forceps, and detached in fragments. Separation of the periosteum was resorted to by Dr. Wood, previous to the removal of the bone. No anæsthetic was used; the patient did not suffer much; only one artery was divided of sufficient importance to require a ligature. The edges of the incision were brought together by sutures and adhesive straps. The

upper cloaca was also closed by sutures; but the lower and larger one having too ragged edges to admit of good coaptation, was left open, and thus formed an outlet to the discharge from the wound. The parts were dressed with dry lint at first, but in consequence of the offensive odor of the discharge, the dressings were subsequently dipped in a creasote lotion, or solution of chloride of soda. Two days after the operation, the silken sutures which closed the upper cloaca had ulcerated through, and the silver wire suture was substituted; but in consequence of the tension required, this also came out by ulceration; the opening, however, soon after closed by granulation. On the first of May, all the external wounds, save the larger cloaca, were entirely healed.

By constant pressure of the tissues outward, by the lint on the inner side of the mouth, and by the rapid process of granulation, the tendency to a sunken deformity was remedied.

The edges of the cloaca were firmly attached to the bone, and thus prevented a successful result in our efforts to close it. Sutures, straps, and vivification of the edges were resorted to, until the opening was so small as just to admit a probe, and forming a salivary fistula. This existed at the time she took her discharge.

There was a new ossific deposit in the place of the bone that had been removed, which deposit preserved the outline of her features almost perfectly.

4. *Necrosis of Scapula.*—Sarah E., æt. 24, was admitted in July, 1858, for necrosis of the left scapula. The diseased portion occupied the upper margin and angle. She was operated upon by Dr. Stephen Smith, visiting surgeon, who successfully detached and removed the necrosed margin of the bone, and the patient made a good recovery.

5. *Caries of the Ribs.*—This case was a man aged 40. The disease was of syphilitic origin. He did not remain a sufficient length of time under treatment to make his case worth reporting. It is mentioned here merely to show the comparative frequency of disease of different bones, so far as it may be illustrated in the cases that occurred in the second surgical division of Bellevue Hospital during a period of ten months.

6. *Caries of Carpal and Metacarpal Bones — Amputation of Hand.*—John C., æt. 55, was first admitted in hospital August 26th, 1857, for disease of the bones of the right hand. Three years previous, while cutting wood, he received a contusion of this hand. He stated that there was an abrasion of the skin, which soon healed, but was succeeded by a small, dark-colored swelling, which soon became

of the size of a goose-egg. The tumor, he said, was thoroughly cauterized, and the hand afterwards passed under various forms of treatment, continuing up to the date of his presenting himself at the hospital. At this time the dorsum of the hand was an open abscess, and there was much swelling of the part involved.

Caries of the metacarpal bones of the index and middle fingers existed. He was put upon the usual treatment for his disease, and remained in the hospital until the 14th of December, without any radical improvement. There was a considerable amount of discharge from the diseased parts, and his general health was evidently deteriorating. At the above date, a surgical consultation was held by the visiting staff, and it was decided that the local disease ought to be removed by amputation of the hand; to this the patient would not consent, and he was discharged. Unable to sustain himself, he went to the Almshouse, on Blackwell's Island.

On the 16th of March, 1858, while he was an inmate of the Almshouse, spontaneous and profuse hæmorrhage from the hand occurred, and it was with difficulty controlled only at the end of twenty-four hours, and after having twice reoccurred. He sought admission to Bellevue Hospital the second time, and now he wished the hand removed. His appearance was much worse than when he left. The loss of blood which he had sustained had probably much to do with his blanched appearance. He was more emaciated than when discharged, and quite feeble. On the 3d of April, Dr. Smith performed the circular operation, just above the wrist-joint, sawing off the lower end of the ulna and radius, to avoid the synovial secretion from their articular surfaces affecting the result. Ether and chloroform were used. The stump was dressed daily, and went on doing pretty well until the 8th, when the roughened edge of the ulna, which had been causing ulcerative absorption of the tissue covering it, protruded. Care was taken from the first to avoid such a result, but it was inevitable. No union by adhesion took place, and the pus was unhealthy in character. Stimulants were given, and nutritious diet. The ligature on the radial artery came away on the 11th. The sutures were removed on the 7th. The last ligature came away on the 16th. On the 28th, the end of the stump was closed, excepting a small point in the centre. On the 5th of May, the edge of the extremity of the ulna, which had protruded posteriorly, was exfoliated, it being a mere scale of bone. On the 18th of May the stump was entirely healed, and the patient was walking about, enjoying good health.

7, 8, 9, 10, 11, were cases of *Caries of the Vertebræ.* Only two

of these cases remained under treatment a sufficient length of time to show the effects of medication. One of these was not benefited; the other, after many months' treatment, was certainly, though very slowly, improving. She still remained in the hospital at the close of my service, (Oct. 1st, 1858,) and with the hope of an eventual cure of her infirmity. Her case was a peculiarly aggravated one; the treatment was varied, and yet decidedly tonic and anti-strumous. Wine and extra diet were allowed. Dr. H. G. Davis, of N. Y., kindly furnished his apparatus for the treatment of this disease, and applied it to this case. The patient was too feeble and the back too tender at the time for her to wear it long, and it was removed. Its object was to give the spinal column sufficient support, so that she might be able to sit up. She may yet be able to wear it. She was also put upon a pill of nitrate of silver and nux vomica, (as suggested by Dr. Davis,) from which she appeared to derive benefit. The lower dorsal vertebræ were the seat of the disease.

12. *Necrosis of Femur.*—D. S., æt. 28, was admitted Dec. 19th, 1857. Sixteen years ago his knee was injured by the rolling of a barrel of meat against it. He continued to work for six weeks after the injury, at the end of which time it was much swollen and painful at a point just above the knee. It was poulticed until suppuration was evident, and then opened at two points; one just above the knee, the other half way up the thigh, on its posterior aspect. He was laid up for four months before he was able to attend to business, since which time, however, his leg gave him no further trouble, until about three months prior to his admission, at which time he fell down a flight of stairs, striking upon the same knee. Pain and swelling of the thigh followed. Suppuration took place, and the swelling opened spontaneously at about the same points as those above mentioned. On probing, denuded bone could be felt at the upper point. He was put upon the use of iron and vegetable tonics. Free exit was given to the discharge by tents of lint, and poultice applied. The lower opening was soon induced to heal, and the discharge from the superior one was much lessened when he left the hospital; the limb was devoid of pain, and he felt well enough to go to work. The amount of disease was so small and deep seated in this case, and gave the patient so little inconvenience, that an operation was not deemed advisable.

13. *Necrosis of Tibia.*—B. K., æt. 22, was admitted in hospital Oct. 29th, 1857. When but four years old she had a fall and fractured both bones of her left leg, near the ankle. It was about two years before she entirely recovered from this injury, and she had no

further trouble with the limb until eight weeks previous to her admission, when, in stepping from a car, her foot turned and she wrenched the left ankle. She was a domestic, and continued at her work for two weeks after the accident, at the end of which time the ankle was much swollen and very painful, and she was forced to relinquish her household duties and keep in bed. A physician was called, who directed the application of six leeches to the joint, to be followed by poultices. Shortly afterwards the swelling opened spontaneously, and discharged a large amount of blood and matter. At the time she came in the hospital there were four openings in the ankle: one just above the external malleolus, and three on the inner side; these were the chief ones, and they communicated with diseased bone. On the 7th of Nov., Dr. Wood laid open the inner side of the leg, just above the ankle, exposing the diseased tibia. By the use of trephine and chisels the dead bone was separated; quite a mass was removed. The cavity left was stuffed with lint after the operation, and this was the only dressing applied, excepting water, until the wound began to suppurate, when the lint was removed and replaced by new as often as was necessary. After a few days the dressings were saturated with a lotion of creasote and water, (℥i. ad Oij.) Abscesses formed from time to time about the wound, which retarded the progress of cure. As there was much tissue to be restored by granulation, the process of reparation was necessarily a protracted one. In two months after the operation the wound was nearly closed or filled by granulation. She was able to walk about the wards in January, but remained in the hospital until the 23d of March. At first walking had the effect of inducing renewed congestion and pain of the parts affected; but this gradually subsided, so that when she took her discharge she could walk about well, and there was but a very little tenderness remaining.

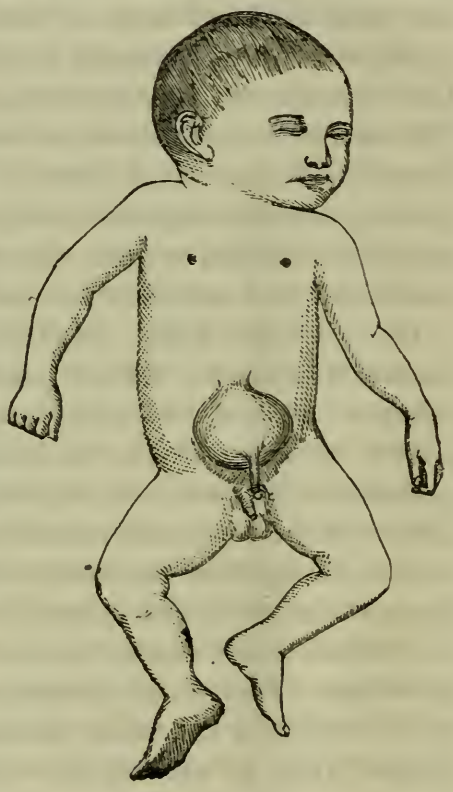
14. *Necrosis of Tibia.*—M. P., æt. 16, came into the surgical wards January 7th, 1858. He had necrosis of the right tibia. Seven years before a barrel of beef rolled over him, and wounded his right leg midway between the knee and ankle. The tibia was exposed for a considerable distance, but the flap of removed tissue was strapped down over the bone, and it healed kindly in about a month, excepting a small opening over the bone, which continued to discharge for some ten weeks, at which time it healed, and he had no further trouble from it. For the past five years he had worked in a cotton-mill in a country village. During each summer, while there, he had been accustomed to be much in the water bathing; often six times in one day. In August, 1857, he was attacked with pain in the right leg and ankle;

this increased, and an abscess soon formed, which opened spontaneously, and had continued open and discharging ever since, and several small pieces of bone had from time to time been exfoliated. The bone was enlarged at the time of his admission, and presented evidence of exostosis. There were three openings in the integument, communicating with the disease beneath. The diseased portion of bone extended from a point two inches above the inner malleolus to nearly the middle portion of the tibia. On the 16th, Dr. Wood removed the sequestrum; the hæmorrhage was considerable; chloroform and ether were administered, and, after the operation, stimulants and anodynes. The treatment of this case subsequently was similar to case 13 On the 1st of April the cavity was nearly filled by granulation, and the bone was no longer exposed. He remained in the hospital until the 19th of May. He was able to walk about well, and was considered cured, though there was still a slight discharge from the part.

Case of Congenital Hernia of the Funis. By C. K. BRIDDON, M.D., Surgeon to the New York Dispensary, &c.

(Read before the N. Y. Pathological Society, Sept. 14, 1859.)

On the 9th of July, 1859, I saw the male child of Hugh and Mary O'Connor, in company with Drs. Pulling, Aigner, and William Corson. The patient was three days old, and was ushered into existence by a midwife. It presented a large globular dilatation of the funis. (See cut.) The expansion commenced immediately at the insertion of the cord into the abdominal walls; it measured two and a half inches in its transverse diameter, and nearly the same in its long axis; the circumference of the narrowest part or neck of the tumor, at the junction of the funicular tunics with the abdominal integuments, was nearly four inches; the skin around the umbilical aperture had been drawn down by the weight of the protrusion, forming



an investment to its pedicle about half an inch long; the dilated funis evidently contained a portion of the hollow viscera of the abdomen, conveying impulses from that cavity, and pressure forcing air audibly from the incarcerated contents into the same.

The taxis was perseveringly tried, but without avail, and it was determined to expose and reduce the contents. The necessity for such a step was arrived at after mature deliberation, and on the following grounds: The expanded cord was in process of desiccation; in a few days its separation would expose its imprisoned contents, such process resulting either in adhesion of the intestine to the abdominal opening, with slough of the protrusion and the formation of a fæcal fistula, or fatal peritonitis would be the issue. The existing condition and probable results having been explained to the parents, they desired that any means might be used that would avert the formation of an unnatural outlet.

Operation.—An incision in the direction of the long axis was made through the funicular investment of the tumor; the dissection was carried carefully through all the tissues, until the intestine was exposed. It was impossible to detect any sac; the mass of contents were at every point adherent to the inside of the expanded funis. These adhesions were easily broken down, and the whole mass was liberated from its covering; but this simply exposed the contents, and further proceedings were necessary to enable us to reduce them. The whole had a truly formidable appearance: it had plainly been incarcerated for some time; it had none of the features of normal intestine; the surface of the folds were covered with organized lymph; the sulci, or involutions between the different folds, were filled up, level with the surface, with solid semi-transparent lymph. The whole was gradually and carefully unfolded, the adhesions yielding readily, and on examination it proved to be the cœcum, a portion of the ascending colon, and a large portion of the ileum. It was now found that the opening through which this had passed was too small to permit its return, so thickened and solidified had the intestinal coats become during their sojourn in the cord; the margin was notched on the right side to avoid the vessels, and the cutting instrument was guarded by the finger. A little gentle dilatation enlarged the opening sufficiently to admit of return of the gut, and a strong ligature, embracing the neck of integuments which surrounded the pedicle of the tumor, effectually closed the external opening. Over this a compress and bandage was applied, and the little patient was put to bed. The child did not appear to suffer much from such apparently harsh proceedings; the hæmor-

rhage was not great, and came solely from vessels ramifying in the plastic material thrown out on the surface of, and in, the interstices of the mass.

10th.—The child has been restless and cross through the night; the abdomen is slightly tympanitic; the bandage was removed, and tr. opii camph., gtts. ii., were ordered every hour.

11th.—Condition much the same as yesterday. Abdomen more distended, and resonant; the child does not take the breast, and vomits green mucosities; has had no evacuation by the rectum.

12th.—The patient remained in much the same state until night, when it died. Just before death it had several watery stools.

13th.—Necroscopic examination 11 hours after death. The integuments are tinged of a yellow hue, abdomen tensely distended, and covered with large tortuous veins. The abdomen was opened by two elliptical incisions inclosing the umbilicus; the inflated intestines bulged through the incisions, and at one point were found adherent to the ellipsis of skin removed in exposing the abdominal cavity. There was no effusion into the peritoneal sac, and the traces of inflammatory action were limited to those portions of the intestine that had been incarcerated in the funis; the descending, transverse, and a portion of the ascending colon, were found healthy, empty, and contracted; at about the middle of the ascending colon was a well-marked contraction of the calibre of the gut, and immediately on the proximal side of this the intestine expanded, and was altered in structure. The expansion was not associated with thinning of the parietes of the tube; on the contrary, they were thickened in some situations to the extent of two and two and a half lines. This condition existed in the cœcum, and eighteen inches of the ileum, where it ceased less abruptly than at the seat of obstruction. The peritoneal surfaces of these portions of the tube were maroon-colored, in some places purple, in others darker, approaching black; but they were not in a condition of sphacelus, were not softened, and did not give way at any part in the manipulation of examination. The mucous surface was less intense in color, but still highly congested, and its epithelium easily detached. The portions described were those that had formed the hernial tumor; the remaining portions of the intestine, the upper portion of the ileum, the jejunum, duodenum, and stomach, were greatly distended with aeriform and fluid contents.

Therapeutic Uses of Glonoine or Nitro-Glycerine.

(From the French, for the Monthly.)

Glonoine is a compound formed by the action of nitric acid on glycerine. An English physician—Field—made the first experiments on this substance, which were afterwards extended by Baker Edwards to the whole series of xyloid substances, such as xyloidine, pyroxyline, saccharoine, glonoine, benzoine, etc. All these substances should have, according to the last experimenter, an action on the nervous system, more or less resembling that produced by strychnine. Glonoine was thought to be the most active of all these substances; in dose of 20 drops it was reported to have produced effects, in a vigorous adult rabbit, resembling, in a remarkable manner, those determined by strychnine. Field and Brady claimed that glonoine would be efficacious in cases of neuralgic pains, doses almost homœopathic being simply required. Fuller and Harley, on the other hand, have recognized in this substance, when given even in very large doses, a much less potent influence than is attributed to it.

In consequence of such contradictory statements, Mons. Vulpian has repeated the experiments of Fuller and Harley, and they have furnished results which demonstrate that glonoine does not produce any of the effects of strychnine, and is not poisonous ordinarily, even when given in moderately large doses. A young rabbit, that had been sick for some days, and very much emaciated, was made to swallow from 80 to 90 centigrammes of pure glonoine. Two and a half hours after, there was no perceptible effect; but it died in 18 hours, without exhibiting any convulsion, at least during the last hours. In other experiments no effect at all was produced. Thus a young dog, of large size, swallowed the same dose (80 to 90 centigrammes) of pure glonoine, without any sickness. The same dog, some days after, swallowed, without any inconvenience, four grammes of pure glonoine, and, after an interval of a few days, took four grammes more, two of which were dissolved in alcohol, and yet there were no morbid phenomena.

Looking, on the one hand, at the almost negative results of experiments on animals with large doses of glonoine; and, on the other, at the report of the English physicians, claiming that phenomena, very manifest and sometimes very serious, have been produced in man after the ingestion of a drop of a solution containing one per cent. of this substance, it is proper to ask whether the same substance has been employed in the different experiments, or if errors have not occurred in the consideration of the results obtained. In the presence of

such contradictions, we can only remain in doubt, until new and more complete experiments shall allow us to decide on what side rests truth.—*Revue Thérap. du Midi*, June 30. L. H. S.

The Curative and Prophylactic Action of Bromine, with Reference to Pseudo-membranous Affections. By Dr. OZANAM.

A. *Mode of Employment.*—The activity of this substance, its volatility and ready decomposition, make it very difficult to be employed medicinally. Alcohol, ether, and chloroform are solvents. They combine readily with the metaloid, but they form a complex product of bromo-formate of ether, bromhydric acid, and bromine; and it is no more a matter of indifference to administer bromhydric acid for bromine, than to employ sulphureted hydrogen instead of sulphur, or chlorohydric acid for chlorine. These solvents should be rejected, as excipients. Distilled water dissolves bromine without decomposition, and without oxydation when protected from light. Our best treatises on chemistry, however, are content with the mere statement that bromine is slightly soluble in water, without mentioning the proportion. Glover fixes the per centage as 1/41,23 in 100 parts of water, at 62°F. Ozanam finds, however, that the degree of solubility varies very much according to the agitation or succussion employed, and the temperature.

When the temperature is low, and the water is poured on without any violent agitation, the bromine is taken up in very small proportion—about 1/12000. But when the temperature is high, and considerable agitation is employed, the solution is much greater, having been as much as 1.50 parts at 15° C.

In view of this great range of solubility in a medicine so energetic, it is important to have some strict pharmaceutical rules for its preparation. Ozanam employs bromine water containing one-thousandth of bromine, as both readily tolerated by the stomach, and sufficiently active. The solution is prepared by shaking 10 centigrammes, or 2 drops of pure bromine, along with 100 grammes of distilled water, and agitating until the solution is complete. The result is a liquid of a beautiful amber color, perfectly transparent, and with a characteristic odor. Kept in the dark in a ground glass-stopped bottle, this will preserve for a long time its amber color and its unalterability, especially if the bottle is full. But if this preparation is to be preserved for a long time, or to be transported, it is better to add to the bromine

an equal quantity of bromide of potassium, which will render it much more stable, and prevent its becoming acid.

The following formula then is recommended:

Potassii bromid.,	0.10 centigrammes.
Brom. pur.,	0.10 "
Aquæ distil.,	100 grammes.

Bromine water is spoiled by free exposure to the air, especially when there has been no addition of bromide of potassium. Indeed, the bromine, on account of its volatibility, tends constantly to escape in the form of vapor; the liquid discolorizes gradually, beginning in the upper layers; and, if the bottle is without a stopper, the bromine completely disappears in a few days.

Bromine water should be cautiously administered in cases of croup and kindred diseases, beginning with very small doses, one to five drops a day, in water or gum julep, to be taken by spoonfuls. If the stomach tolerates the medicine without difficulty, the dose can be increased according to the age of the patient and the violence of the attack. It has been given in certain cases to the extent of from 25 to 30 drops a day, but this cannot be exceeded without provoking gastric pains and vomitings.

Bromine is also soluble in *glycerine*, and the solution is preserved a longer time, when exposed to the air, without decomposition; but when exposed to light, acidity is quickly developed.

B. *Prophylactic Virtues of Bromine.*—Ozanam thinks that he has protected entire families by requiring every member employed with the patient to take from 3 to 6 drops daily in sugar-water. Whether the morbid influence was only experienced in *malaise* and sore throat, or there was threatening of the disease, with redness of the throat and whitish spots already apparent, the danger has always been removed.

A more serious and difficult case led him to discover the anti-miasmatic value of bromine vapors. He was called during the month of May, 1858, to see a young girl, in a boarding-school, attacked with decided croup. She was treated by bromine water, and cured, after having thrown off at different times pseudo-membranous tubes, from 10 to 12 centimetres in length. The infirmarians, who nursed her night and day, also took bromine, and escaped. Some days after three other children in the same house were attacked; they were isolated, and placed under treatment. Five days afterwards three new cases occurred in a class which had no communication with the chamber containing the sick. He could not conceive the cause of this epidemic until he learned that numerous similar cases were under treatment at the *Hô-*

pital des Enfants, and that the wards in this hospital appropriate to such diseases were those nearest to the boarding-school. It was, then, the air which brought these miasms, and hence it was necessary to purify and protect the whole house.

He placed in each dormitory, and in the infirmary, glasses filled with water, in which three or four drops of pure bromine were poured; this substance is so diffusible, that in a short time the atmosphere was impregnated with it. The vessels were removed in the evening, so as to avoid any injurious effects the vapors might exercise in the dormitories at night. This plan was successful; all the sick got well, there were no new cases, and he had the pleasure to arrest the germ of a contagion that might have been most dangerous in a house containing nearly one hundred persons. The fumigations were continued for more than twenty-five days, so as to prevent every chance of return.

This valuable property of bromine can often be made useful in hospitals. The article is employed in such small quantity, on account of its energy and diffusibility, that a small bottle will suffice to purify large halls for weeks, and to preserve them from a serious epidemic.—*Gazette des Hôpitaux*, May 24, 1859. L. H. S.

Monthly Summary of Cotemporary Medical Journalism. By O. C. GIBBS, M.D., Frewsburg, N. Y.

Iodide of Zinc in Chronic Conjunctivitis.—In the *Peninsular and Independent*, for August, Dr. Waggoner, of Oconee, Ill., has a short article upon the treatment of chronic conjunctivitis. After correcting the general health, if deranged, he advises the application of one-sixteenth of a grain of sulph. morphine, dissolved in water and applied with a camel's-hair brush, twice a day, until all irritability is allayed. After this follows the curative treatment, which does not materially differ from that usually put in requisition, except that advised in his concluding remarks. He says, "Latterly I have incorporated in my materia medica the *iodide* of *zinc*, the effects of which have proved satisfactory beyond all anticipation. This drug is passed over in all our standard works on therapeutics, in almost profound silence. In no case, in which I have observed its effects in the treatment of ophthalmia, has it deserved, in my humble opinion, a place second to any other remedy. In one scrofulous case, it acted like a charm. Will not the profession give attention to this very deserving agent, and

more fully prove its worth ?" The Dr. does not give his formula for use.

Congenital Hernia.—In the same number of the *Peninsular and Independent*, Prof. Moses Gunn, of Detroit, reports a case of hernia, descending through a congenital passage for the first time after the age of 30 years. If this case is not *unique*, such cases must be of rare occurrence.

Miasmata.—In the *Lancet and Observer*, for August, Dr. Harvey, of Springtown, Indiana, publishes a paper upon the above ever vexatious subject. It is difficult to give a synopsis of the paper that will be sufficiently condensed to answer our purpose. He says, "Those diseases originating from miasmatic causes are produced by a change in the relative proportion of the several gaseous and mineral elements of which the living body is composed; in other words, diseases which appear both epidemically and sporadically, and some others, are produced by the addition to, or subtraction from, the essential elements of the body in health." Again, he says, "In intermittent, bilious, and remittent fevers, the crassamentum of the blood is increased, and darker in appearance than in health. The red globules are darker, and the quantity of serum less than the healthy standard; the fibrin having been either changed to albumen or coagulated to a certain extent. Hence we may infer that there has been *carbonaceous* matter from external sources added in undue proportion, or a decomposition within the body." Want of space will not permit us to give the premises upon which this idea is based. He adds further, "In such diseases as cholera, dysentery, &c., we must look for other causes; but these may be found in other gaseous or mineral elements or compounds, emanating from similar sources as carbon, and also from the earth. My opinion is, that cholera is produced by the action of *nitrous acid gas* upon the blood. In certain electrical conditions of the atmosphere, the oxygen and nitrogen of the air become chemically united, and form nitrous oxide or protoxide of nitrogen; and these two gases, being disengaged from decaying animal matter, become united also, with the same result; and the resulting compound floats in the air, and is absorbed through the lungs, skin, food, &c., into the system. I believe that the great amount of moisture in the air, the great heat and presence of electricity everywhere in those countries where cholera is raging, causes a greater or less chemical union of the elements of the air, thereby producing nitrous acid gas."

The miasmatic element, as productive of disease, and of varying diseases, has been an incomprehensible mystery and vexation to ob-

serving physicians for all time, and is likely to be for some time in the future. Some have denied its existence altogether, as an aerial poison, the product of animal or vegetable decomposition, and as causative of endemic or epidemic diseases. We will here instance only S. Littell, M.D., of Philadelphia, who refers such diseases to electrical agencies, and the late J. K. Mitchell, M.D., who referred them to a cryptogamous origin. That certain diseases occur only when there is a conjunction of certain atmospheric and terrene conditions, is almost universally admitted; that the terrene conditions exercise a controlling influence, is a fact too well established to admit of doubt; and that that terrene condition or element is effluvial, is more than problematical. But why dissimilar diseases from similar causes? That the plague and yellow fever occur only under similar, if not absolutely identical conditions, is well known. High temperature, humid atmosphere, lowness of site, density of population, and animal and vegetable putrescence, with a preponderance of the former, are necessary conditions to the production of a miasm that will develop either of the above-mentioned diseases. If the causes are the same, why not the results? If these conditions develop the plague in Constantinople, why not in New Orleans; and the reverse, in regard to yellow fever? We answer by putting another question. If sugar, starch, and gum-arabic are composed of precisely the same ingredients, in two of the instances, in precisely the same proportions, why are not the physical properties of the resulting compounds identical? If dissimilar substances are isomeric, may not the causes of dissimilar diseases be also isomeric?

Intermittent, remittent, and bilious remittent fevers have also terrene causative relations and dependencies, and those causatives are apparently identical, and always present where these fevers are endemic. The miasm of intermittent differs from the miasm of yellow fever and cholera, but we are not prepared to believe the difference to be what Dr. Harvey suggests. The miasm of an intermittent has a more vegetable origin than that of yellow fever, and its conditions of development are not the same. If intermittent fever has always terrene causative relations, why is not that disease always present whenever those causative relations exist? True to our Yankee instincts, we answer by asking, Why carbon and hydrogen, in the relative proportion of five parts of the former to four of the latter, in combination, are not always oil of turpentine, and not sometimes oil of lemons, as is well known to be the case? Why is not $C_{12} H_{10} O_{10}$ not always starch, when in combination, and not sometimes gum-arabic and gum-tragacanth respectively?

This is not the time or place to enter upon controversial ground—the above thoughts are thrown out simply as suggestives.

Laryngismus Stridulus.—In the same number of the *Lancet and Observer*, Dr. R. R. McMeens, of Sandusky, Ohio, reports a case of the above disease, with a few remarks upon its pathology. Dr. Hord, in the *British and Foreign Medico-Chirurgical Review*, declares the exciting and sustaining cause of the disease to depend upon an enlarged state and disordered function of the liver—a condition of that organ vulgarly termed and treated by nurses as "livergrown," and the laryngeal difficulty, dyspnœa and spasm of the glottis, are sympathetically excited and secondarily involved; and offers, in support of the allegation, the revelations of twelve autopsies of fatal cases, all confirmatory of the fact. "To the truth of this proposition," Dr. McMeens says, "I am disposed to defer, from the ostensible efficacy of remedies adapted to such pathological inductions. Cathartic doses of calomel, followed by free discharges of vitiated bilious secretions, were invariably succeeded by a marked amendment, while the absence or deficiency of such secretion was precursor to a decided aggravation of the disease. As an alterative, the proto-iodide of mercury had a most happy influence over the secretions. Dover powder usually sufficed to allay any disturbance or pain in the bowels. Frictions along the spinal column were premised for the contraction and insensibility of the extremities, and the inhalation of ether, hyoscyamus, and anise, to soothe the irritability of the larynx and allay cough. Under this treatment, at least, the disease was manifestly modified, and the patient steadfastly improved.

"How such a pathological condition and disordered function of the liver is capable of producing such an inveterate affection, and involving so distant an organ, by sympathetic influence and nervous concentration alone, is a question of no easy solution, and would require the talent and ingenuity of a Henry Frazer Campbell to clearly elucidate."

The pathology of this affection has been anything but definitely settled, and anything concerning it we regard with interest. Some, with Drs. Ryland and North, have supposed the disease dependent upon cerebral derangement, while others consider it dependent upon gastric irritation. Dr. Marsh thinks it may proceed from irritation of the pneumo-gastric nerve; while Dr. Ley supposes it dependent upon paralysis of the muscles which open the glottis, in consequence of pressure of enlarged glands upon the recurrent nerves. It is probable that the laryngeal affection is due to a reflex nervous

action, the seat of irritation being variously located: sometimes in the gums; at others, in the medulla oblongata; and still at others, in the liver, or any part of the digestive apparatus.

Gun-shot Wound through the Abdomen.—In the August number of the *New York Monthly Review*, Dr. J. J. Edmunds, of Buffalo, reports a case under the above heading. He says: "On examination, we found two wounds; one in the centre of the right gluteal region, and the other in the back, nearly opposite the junction of the lumbar with the dorsal vertebræ, about three inches to the left of the spine. The ball had passed through the bowels, wounded the left kidney, and lodged in the abdominal muscles, about two inches above and to the left of the umbilicus." The patient recovered. Dr. Edmunds seems positive that the intestines were wounded in this case, and seems to think that, in similar cases of recovery, surgeons unwarrantably suppose "that the ball either passed round, without entering the peritoneal cavity, or in some manner glided between the intestines, without inflicting injury." Had fæcal matter escaped by the wound, the Dr. would have had proof positive that the intestines were perforated; but, lacking that evidence, we must be permitted to doubt. If any evidence for our opinion is wanted, we beg leave to refer to the report. On the eighth day of the treatment, with six grains of morphine daily, the bowels moved spontaneously, "*and quite natural.*" Had the intestines been riddled with the ball, we must be permitted to think that the evacuations would not have been *quite natural*, and the result, we may suppose, might have been different.

Removal of the Toe-nail.—In the same number of the *New York Monthly Review*, Prof. Mack, of Buffalo, in his Review of Parisian Medicine and Surgery, says, "In-growing toe-nail is removed by M. Gourut by the following process: Short strips of adhesive plaster are placed on one another, so as to form a kind of brim; two such fasciculi are made, and placed a little in front and a little behind the morbidly-growing nail. Into the groove thus artificially made, and which just occupies the root of the nail, semi-fluid Vienna paste is put. After a few minutes, a black eschar is formed, properly hemmed and limited by the adhesive plaster. The paste is now quickly taken off; and in a few days the nail comes off, without pain, by the gentlest traction.

A Substitute for the Ecraseur.—In the *Chicago Medical Journal* for August, Prof. Daniel Brainard figures, and describes a blunt scissors, invented by himself, for the removal of vascular tumors, when the *écraseur* could not be applied. It is adapted for the removal of tumors of the throat, and he reports one case in illustration of its utility. A

vascular tumor of the fauces was successfully removed, of which Dr. Brainard says, "Its removal would have been very difficult without the forceps, as the knife allowed too much bleeding, and the *écraseur* could scarcely be applied."

A New Method for preventing Hæmorrhage in Operations on the Lips.—In the same number of the *Chicago Medical Journal*, Prof. Brainard figures a pair of forceps for compressing the facial artery in operations upon the lips. The forceps are bent at the point, the object of which is to turn the handle out of the operator's way, and they are fixed by a slide. He says: "This, with slight additional pressure by the fingers of an assistant of the alæ nasi, in cases of hare-lip, or upon the chin in operations for cancer of the lower lip, so effectually arrests the hæmorrhage that chloroform may be safely used. These forceps are convenient for holding the lip while the needles are being inserted." In all operations for hare-lip, and for the removal of small tumors of the same parts, we have arrested hæmorrhage with the heated wire. It is speedily applied, and quite effectual.

On the Simultaneous Existence of two Diseases Originating from Specific Morbid Poisons.—In violation of the programme which we had marked out for ourselves—that of confining our *Summary* to American Medical Journal Literature—we make reference to an article, by Charles Murchison, M.D., of London, upon the above subject, published in the July number of the *British and Foreign Medico-Chirurgical Review*. It has been a prevalent opinion in the profession that two specific diseases could not run their course in the same system at the same time. Dr. Murchison introduces cases to show that two morbid actions and two eruptive diseases can coexist. For instance, typhus fever has been known to run its course with typhoid, and also with scarlet fever and erysipelas; hooping-cough with measles, small-pox, and the vaccine disease; small-pox with scarlet fever, measles, erysipelas, vaccine disease, &c.

These statements all may be true, and the cases well observed and correctly reported; but we have vaccinated many a time, after an exposure to small-pox poison, and have never yet seen variola and vaccinia running their course at the same time. In one instance, (for report of case see *American Journal of Medical Sciences*, vol. 24, p. 566,) we vaccinated a patient four days after an exposure to small-pox, and three days thereafter, thinking the vaccination was going to fail of effect, we performed variolous inoculation. The vaccine disease was produced, with no peculiarities of intensity or prolongation of development; the variolous exposure and inoculation proving abortive.

Erysipelas.—In the *Medical and Surgical Reporter* for August 13th, J. R. McClurg, M.D., of Philadelphia, has an able article upon the above subject. In regard to treatment, after the action of an emetic and a saline cathartic, combined with a mercurial, if there be symptoms of bilious derangement, he says: "I always use some tonic medicine, and my favorite prescription, and the one I uniformly use in all cases of erysipelas, of whatever form or character, as soon as the system is prepared for it, is,

℞.—Spiritus ætheris nitrici, f. ℥ij.
Tinctura ferri sesqui chloridi, f. ℥ij.
Quiniæ sulphatis, gr. xvj.

Misce et S. Take a tea-spoonful every three hours. This constitutional treatment I have found very successful in my hands, and desire nothing better."

This corresponds very nearly to the treatment we have found very serviceable. We are, however, in the habit of prescribing the tincture of iron in a little larger doses, say twenty drops every three hours; and the quinine in combination with Dover's Powders, from one to two grains of the former to five of the latter, every four or six hours.

A Case of Epilepsy Cured.—In the same journal for August 20th, Dr. S. N. Pierce, of Cedar Falls, Iowa, reports a case of epilepsy, cured under treatment in compliance with the following prescription:

℞.—Ext. stramonii.
" conii, ää gr. xv.
Strychnia, (cry.,) gr. ij.
Argent. nitr., ℈ij.
et div. in pil. No. xxx.

"Of these," he says, "I gave three a day. This course was pursued perseveringly, the amount of strychnia and nitrate of silver being slowly increased until I found the disease gradually yielding to its influence. I now have the satisfaction of feeling that the disease is subdued." Patients have recovered in cases of epilepsy under a variety of treatment that subsequent experience has proved to be of non-effect.

One case is quite too limited to judge of the effects of any medicine or combination of medicines. The case of Dr. Pierce loses in interest when it is remembered that the improvement at the time of the report was of but five weeks' duration.

Mental Influence on the Products of Conception.—In the *Medical and Surgical Reporter* for August 27th, Dr. Ziegler, of Philadelphia, reports a case of a mother who, in the early weeks of pregnancy, was badly frightened by what she supposed to be one of her children cut-

ting off the hand of another. She was confined at full time of a child minus the right hand—the radius and ulna terminating abruptly in a stump at the wrist. The editor adds that, four years since, he saw a woman delivered of a child with a deformed nose, which was in exact resemblance to that of an unfortunate girl's who lived next door, who had a cancer of the nose.

The first case was doubtless a case of spontaneous intra-uterine amputation, caused by the cord being wound around the wrist. The second was doubtless a case of incomplete development, which occasionally occur as freaks of nature, of which hare-lip is a sample. We once saw a nasal deformity similar to the above, but the lip was cleft. We hope our women are not going to reproduce all the deformities they see.

Strychnia in Chronic Intermittents.—In the *New Orleans Medical News and Hospital Gazette*, Dr. Harrison, of Arkansas, has an article upon the use of strychnia in chronic intermittents.

The following is his formula:

"℞.—Strychnia,	gr. iss.	
Sulph. Quinine,	gr. xv.	
Capsicum,	gr. vj.	
Brandy,	ʒiv.	M.

"Of this mixture, I direct one tea-spoonful (for an adult) every hour, for six or seven hours preceding the expected paroxysm; at the end of this time I require the patient to take a cup of warm sage tea, and go to bed, (if he is not already there,) and remain until the paroxysmal hours pass. This course is to be repeated on the next 'chill day,' after which a tea-spoonful of the medicine is to be taken two or three times per day, until the four ounces are exhausted."

With Dr. H. F. Campbell's views of the nature of this disease, and of its relation to the nervous system, the philosophy of this treatment becomes at once apparent. This, however, is not altogether new treatment. Dr. Brainard, of Chicago, recommended strychnine, in an eighth-of-a-grain dose, three times a day, in similar cases, more than twelve years ago. (See *Indiana Medical Journal* for July, 1847.)

We are confident that the remedial powers of strychnia are not yet fully bronght out. So far as we know, we were the first to use and recommend it, in *sciatica* and chronic rheumatism; and we have seen cases of dyspepsia and chronic costiveness yield to it like a charm.

Nature and Treatment of Cholera Infantum.—In the *Southern Medical and Surgical Journal* for Augnst, Dr. Ford, of Atlanta,

Georgia, has an article upon the above subject, in which he advocates an unusual treatment. We have not space to give a full synopsis of his ideas. Suffice it to say, that he believes the disease to have malarious causative relations, with such *ganglionic* irritation as is conformatory to H. F. Campbell's idea, conveyed to vascular organs and secretory surfaces. We quote his treatment: "I recommend as a good plan, as far as my individual success is concerned, as well as scientific reasoning, the following treatment: Sulp. Quinine and sulp. iron, half grain of the former, and quarter of a grain of the latter, three times daily. Besides a mixture of this kind, I give sometimes three doses of the quinine, commencing early in the morning, giving one dose every two hours." "Lime-water, camphor-water, and bicarbonate soda were used freely, when there was excessive vomiting; also mush poultices with mustard, over the epigastric region." Dr. Ford speaks of combination of iron and quinine as though it was in solution, but he has given us no formula for such solution. He reports good success; but, confessing to a little skepticism, we are hardly prepared to abandon the old treatment.

Use of Alum on Bougies in Strictures.—Dr. Mason, of Richmond, Va., in the August number of the *Virginia Medical Journal*, reports an obstinate case of stricture that yielded promptly to the use of bougies dipped in pulv. alum. He says, "The very first attempt was successful, when every other admissible means had failed. What the rational of this treatment is, let others attempt to explain. In a few days we were able to introduce the largest-size catheter without using alum, the stricture having entirely yielded." Should subsequent experience confirm this report, a valuable addition will have been made to our means for the relief and cure of this painful difficulty.

Solution of Tannic Acid in Glycerine.—A "Retired Pharmacien," in the August number of the *Atlanta Medical and Surgical Journal*, says: "The remarkable solvent power of the glycerine for tannic acid may be resorted to with advantage, when it is desired to secure a powerful astringent or styptic effect.

℞.—Tannic Acid.
Glycerine, ää 1 ounce. Dissolve.

A bit of sponge, wet with the solution, and passed up to an ulcerated and bleeding os uteri, restrains the hæmorrhage satisfactorily. The various applications of a compound so powerfully astringent will readily suggest themselves; diluted with an equal bulk of water, it is used for hardening the nipples.

Pile Ointment.—R.—Tannic Acid, 2 drachms.
Sulphate morphia, 6 grains.
Glycerine, 2 drachms.
Lard, 1 ounce.

Rub the acid, morphia, and glycerine together in a mortar, add lard, and mix thoroughly."

Sympathetic Vomiting in Pregnancy.—In the *Boston Medical and Surgical Journal*, for August 25th, Dr. E. D. Miller, of Dorchester, reports several cases of the above troublesome affection treated with local applications to the neck of the womb, and with prompt effect, and in some cases after the failure of other means. His application is the ethereal tincture of iodine, (from half to one drachm of iodine to an ounce of sulphuric ether.) This application is made once a day, or less frequently, as the case may require.

REVIEWS AND BIBLIOGRAPHY.

Urinary Deposits—their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, M.D. Edited by Edmund L. Birkett, M.D. A New American, from the Fifth London Edition. Philadelphia: Blanchard & Lea.

Fifteen years ago, Dr. Golding Bird republished, in a single volume, a series of lectures, which had originally appeared in the *London Medical Gazette*, on Urinary Deposits. Few works on a special department of medicine were received with more general approbation than this, inasmuch as it embodied all the latest discoveries, and not a few of the original ideas and suggestions of the author himself, clearly explained and admirably illustrated. So well did it fulfill the wants of the medical profession, that in the short space of nine years it had gone through four large editions, each undergoing a republication in this country. Two years since, Dr. Bird having passed away from the scene of his labors, Dr. Edmund L. Birkett edited and brought forward a fifth edition, his object being, as he says, "to bring the work fully up to the present period, and at the same time, as far as possible, to preserve throughout his (Dr. Bird's) delicate touch." This work has been admirably republished by Blanchard & Lea, and we propose to examine briefly how far Dr. Birkett has fulfilled his promise.

There are few medical men who have entered at all into the subject

of Urinary Pathology, as it is termed, that are willing to recognize the views enunciated by Prout and Golding Bird in relation to the various urinary diatheses fifteen years ago, as true at the present day. The mistake they committed in attaching undue importance to an increase of some particular urinary element, and finding in this increase a special and independent morbid condition, is one that at the time they could scarcely have avoided. Nor is it for us of the present day, taught by the advances of science, and the labors of subsequent observers, to whom they in a measure gave the impetus, to decry the obligations we are under to them. There are few truths in medical science that have not been elaborated by slow degrees; and just as the text-books of yesterday have given place to those of to-day, so those of to-day will be superseded by others to-morrow. Therefore all honor and praise to Dr. Bird; he fulfilled his duty according to the light he possessed, and had he been spared to the profession, would undoubtedly have been now, as he was then, among the foremost in appreciating and teaching the views of the present day. This, we are sorry to find, Dr. Birkett has not altogether done. He still retains the old distinction into uric acid, phosphatic, and oxalic acid diatheses, although such a division can no longer be recognized as tenable.

Whether a deficiency or excess of uric acid be due, on the one hand, to an excess or deficiency of change in the urea; or, on the other, to too great or too little disintegration of particular tissues, matters not, so far as the question of diathesis goes. In either case, an excess or deficiency of this acid is the result of simple physiological changes, the causes of which may or may not be associated with disease. It is, therefore, but a single symptom, an important one oftentimes, it is true, but still it is not a disease, nor does it alone indicate a disease, nor by itself require a special treatment. Such, also, is the case with the phosphates; and as oxalate of lime is a healthy ingredient of the urine, as any one may satisfy himself by freezing a portion of his own, and observing that octohedra of oxalate of lime are sufficiently evident under the microscope; and as, moreover, the diathesis is deduced from the presence of a deposit merely, and not from any excess in the urine, we are forced to admit that there is as little ground for assuming it to exist as a special diathesis, as for the uric acid or the phosphates. In addition, every observer must have remarked how common large deposits of oxalate of lime are in perfectly healthy individuals, continuing oftentimes for years, increased usually, it is true, under attacks of dyspepsia, but still exerting no appreciable influence on the general health; and this view of

the pathology of oxalate of lime is held by Scherer, Lehmann, Bence Jones, and Owen Rees.

Laying aside this fundamental omission of Dr. Birkett's, much has been added in other respects. The first chapters, on preliminary details and analysis, are excellent. We are sorry that the editor has merely alluded to Liebig's mode of detecting urea by titrition, instead of giving a full and detailed account of the mode of performing it; for perhaps in no respect has so decided an improvement been effected in urinary analysis as in the estimation of the various elements of the urine by graduated and definite solutions. He has added, however, a valuable table for discovering the nature of urinary deposits by chemical reagents; and on page 66 there are some exceedingly well-timed remarks in reference to placing too much trust in chemical formulæ, as explaining vital phenomena; a plan too much relied upon at the present day, and one that may be made to prove almost anything.

He does not allude, however, in speaking of the physiology of uric acid, to Dr. Hammond's experiment, in which a black snake, whose urine contained no urea, was confined in a jar of oxygen gas, after which it exhibited it abundantly—an experiment so pertinent to the question under discussion, and which has been recopied from the original article more than once. He reiterates, also, the same accusation against Dr. Fricke that appeared in the second edition of the work, in which he is made to assert that the dumb-bell crystals, described then as oxalate, and now as oxalurate of lime, consisted of uric acid. Dr. Fricke, some years since, asserted that the dumb-bell crystals did not always consist of oxalate of lime, and stated that uric acid, in the process of disintegration, sometimes assumed this peculiar shape; and this fact is now abundantly recognized. No one doubts that the dumb-bells figured originally as oxalate of lime are such, but there is no proof whatever that they are oxalurate of lime, as Dr. Bird subsequently asserted, and as Dr. Birkett still continues to call them.

We must thank the latter, however, for his chapter and plates on renal tube casts, which is an important addition, but more might be added with advantage; and it is a little remarkable that, with the exception of the present work, there is no text-book for students that contains any information on this subject that is at all reliable.

The chapter devoted to saccharine urine is improved and added to, and contains now the latest views on this interesting, and as yet complex subject.

The final chapter, on the action of some diuretic agents, we have always considered as a masterly production, and one of the best evi-

dences of Dr. Bird's originality and talent. It remains nearly unaltered; but he left little or nothing unsaid, even as far as our present knowledge extends, and it was better that it should continue as it was originally.

We have thus glanced hastily at some of the more prominent faults and merits of the work before us. In spite of what we have said in its dispraise, it must still be the text-book for students until another shall be written, embodying the improved views of the present day, which as yet are distributed either in small monographs, or in works too abstruse and cumbersome for the mere medical student. F.

A Dictionary of Practical Medicine: Comprising General Pathology, the Nature and Treatment of Diseases, Morbid Structures, and the Disorders especially incidental to Climates, to the Sex, and to the different Epochs of Life. With numerous Prescriptions for the Medicines recommended; a Classification of Diseases according to Pathological Principles; a copious Bibliography, with References; and an Appendix of approved Formulæ: the whole forming a Library of Pathology and Practical Medicine, and a Digest of Medical Literature. By James Copland, M.D., F.R.S.; Fellow of the Royal College of Physicians; Honorary Member of the Royal Academy of Sciences of Sweden; of the American Philosophical Society, and of the Royal Academy of Medicine of Belgium; lately President of the Royal Medical and Chirurgical Society of London, &c., &c. Edited, with Additions, by Charles A. Lee, A.M., M.D., Professor of Materia Medica and General Pathology in Geneva College, &c., &c. In 3 volumes; pp. 1,254, 1,101, 1,717. New York: Harper & Brothers, Publishers.

The present is an age of Cyclopædial literature. Works of this description are to be found in almost every department of art, learning, and literature; and the ponderous volumes before us are models of their kind. Really, they constitute a Cyclopædia of practical medicine. Each article is an exhaustive essay, condensing, with admirable skill and judgment, the combined wisdom of the present and past ages. We cannot too much admire the wisdom, varied talent, extended research, and patient labor which have culminated in the production of this work, which will ever remain as an enduring monument to perpetuate among the profession a grateful recollection of the author's name and fame. An analysis of the more than four thousand double-columned and closely-printed pages, in any justifiable space, is an impossibility, and a criticism we are not foolhardy enough to attempt.

We shall, however, essay to give our readers some idea of the character of the work, hoping, for the good of suffering humanity, that each one will see the necessity of placing the Dictionary upon his own table, and making Dr. Copland his daily consulting physician.

The *nature* of disease is fully developed, and the causes which bring about departures from a normal condition well brought out, under the heads of *disease* and *blood;* and again, with more special bearings, under the heads of *climate, endemic causes, epidemic influences, infections, contagions*, &c. The operation of these causes upon the vital forces, as manifested through the nervous and sanguineous systems, producing functional and structural alterations, is duly considered. The alterations of secretion, excretion, nutrition, and of structure, which supervene as the result of the operation of the *pathogenic states*, meet with a concise, yet thorough, enunciation. *Morbid anatomy*, so far as it has practical relations, receives due consideration under the heads of the several organs, systems, and tissues of the body, and the morbid changes observed by the microscope, as well as the unaided senses, in the simpler as well as the more complex tissues, receives as ample an elucidation as is consistent with the character of the work.

There is no work on practical medicine in the English language in which the principles of *general pathology* receives as full consideration as in the volumes before us; and every well-educated physician and thoughtful prescriber will readily admit that this subject forms the only true and legitimate basis for a successful practitioner of medicine. *Special pathology* also, under the heads of individual diseases, comprises all that is of practical import, developed by the recent investigations in morbid anatomy, physiological, general, and special pathology.

Intimately connected with the causes of disease, and the nature of the morbid conditions which characterize the various departures from health, are the *signs* and *symptoms* by which disease is manifested, and its peculiar character indicated to the observer. Dr. Copland's article on *symptomatology* is one of the best and most practical essays upon that subject that it has ever been our good fortune to read. Special symptoms, as characteristic of special disease, receive attention in their appropriate places. *Diagnosis* and *prognosis* are considered in connection with, and as related to, symptomatology.

Age, sex, race, climative influences, and epidemic constitutions, as connected with disease and therapeutics, are all considered with that amplitude which is consistent with the character of the work. Infections and pestilential diseases, epidemic fevers, and maladies of en-

demic origin, are all fully entered into, and views, harmonizing with the most reliable of recent opinions, are succinctly stated. "When discussing *fevers*—continued, exanthematous, malignant, pestilential, and puerperal—the author has endeavored to connect these with their causes, to describe the changes, both functional and organic, which successively occur in the fluids, general systems, and structures. He has divided the fevers which assume a continued type into the forms and varieties which most frequently appear in temperate climates, and as he has observed them. But he has contended that no precise line of demarcation can be drawn between several of them, one form passing, in individual cases, into the other the most nearly allied to it, according to the exciting cause, to the concurrence of other causes and determining influences, and to the existing epidemic constitution; certain forms thus prevailing, or predominating."* Under the head of *Pestilence*, the three great epidemics, cholera, yellow fever, and plague, are very ably considered, displaying the most familiar acquaintance with the existing literature of the subjects. Some opinions are here expressed which are not in accordance with our own; but, as they are enunciated with such ability, and defended with such an array of evidence, and as they are in conformity with those entertained by the majority of the members of the profession, we shall not attempt here their criticism. Our opinions upon the causes, spread, and communicableness of each of the three great epidemics just alluded to, have been previously expressed, and that expression is already in the hands of the publisher. Their repetition here would be altogether out of place, as well as an expenditure of valuable space, that can else be better appropriated.

In a work that is so uniformly well done, it is hardly proper to make any specifications of excellence. But, having referred to epidemics, we cannot resist the inclination to refer to the articles on the following subjects, as being of special interest, viz.: scrofula, tubercular consumption, scarlet fever, erysipelas, dysentery, pneumonia, dropsies, and fevers in general.

Poisons are individually considered in relation to their peculiar effects and special treatment. *Insanity* and *suicide* are other subjects which are thoroughly investigated in their causative and developmental phenomena, and a general view given of the manifestation of mind by the instrumentality of the brain.

The study of anatomy and physiology, of general and special pathology, of materia medica and pharmacy, has one grand culminating

*Author's Preface, p. 13.

object—the cure and prevention of disease, the mitigation of human suffering, and the prolongation of life. What matters it to know the causes of any disease, if we have not the knowledge or the power to bring to bear preventive or remedial appliances? Of what avail is it to suffering humanity, if we understand the morbid anatomy and the minute changes which the microscope only reveals in diseased structures, if we have not a corresponding knowledge of appropriate curative agents? Of what practical import is it that we understand the functions of the nerves, their cerebro-spinal connection, and influence over sensation and motion, if we cannot mitigate the racking pain of a neuralgia, or quiet the jactitations of eclampsia? All medical study, hence, should have a practical object; and that object should be, as above stated, the prevention and cure of disease, the mitigation of suffering, and the prolongation of human life. To know what ails the patient, and what is his minute pathological condition, avails the sufferer naught, and serves us no other purpose than as an indication of the source and means of cure, or at least of mitigation. It is here, in the department of special therapeutics, that Dr. Copland excels. We believe the volumes before us contain more reliable practical information than can be found elsewhere for twice the cost. "The author has endeavored to develop, under this head, the principles and intentions which should guide the student and the practitioner of medicine in the application of the knowledge they have acquired of other departments of science to the grand objects of curing and of alleviating diseases." —(*Preface.*) More than this, he has recorded the opinions and practical experiences of the lights in the profession, of the present and past ages, and overshadowing all are the results of his own extended experience and mature deliberations.

The diseases of women and children enter into the plan of the work before us, and these subjects are handled with signal ability, and with evident thorough acquaintance with all the recent publications upon those subjects. Dr. Copland was, for twenty-five years, Consulting Physician to a Lying-in Hospital, and, for many years, Physician to the Royal Infirmary for Diseases of Children, and is, consequently, thoroughly prepared to do justice to these specialties.

Each article is accompanied with copious bibliographical references, which will greatly facilitate the researches of the specialist, or any person who may desire to prosecute any subject of inquiry considered in the Dictionary of Dr. Copland. The work concludes with an index and classified contents, which, though condensed into the smallest possible compass, occupies over one hundred closely-printed pages.

It is proper here to refer to the editorial labors of Dr. Lee. This labor could not have been confided to abler hands, nor to one who would have discharged his duties with greater devotion or more signal ability. Ordinarily we have no great regard for editorial annotations, but in the present work they have been so ably made and judiciously timed as to greatly add to the value of the volumes, especially to American practitioners. The additions are very numerous and able, and the zeal of the editor is only surpassed by the industry of the author.

We have thus briefly endeavored to give the reader, who may unfortunately be unacquainted with Dr. Copland's writings, some idea of his great work—a work upon which he has industriously labored for thirty years, and the publication of which, in numbers, was commenced nearly twenty years ago, in England. The first volume was issued, by the present publishers, in this country, in 1855, and the last volume during the present year. Dr. Johnson once said, "It is the great excellence of a writer to put into his book as much as his book will hold." If this be so, then Dr. Copland is particularly excellent, for the last volume contains over 1,700 double-columned and fine-typed pages. Should another edition be called for, as we hope there may be, we would suggest to the publishers that they issue the work in larger type, and put it up in six instead of three volumes. Issued in the same type and sized pages as *Wood's Practice*, Dr. Copland's work would make eight volumes, of over 800 pages each. It is true, such an edition would increase the cost, but the work is worthy of such an issue, and should meet with a sale that should justify such an outlay.

We know that the whole profession will congratulate Dr. Copland upon the completion of a work that has constituted the labor of his life. A labor of such magnitude has never previously been attempted, nor, in its completion, displayed such profound research, such vigor, breadth, and comprehensiveness of intellect, as are evidenced in the work before us.

We cannot better conclude this notice than by a quotation from the *British and Foreign Medical Review*: "The information amassed in these volumes is literally enormous, and, contemplated simply as an accumulation, it must excite astonishment as the production of an individual; but when it is further considered that the whole of the materials have been most carefully selected from all existing sources, most particularly studied, valued, winnowed, digested, elaborated, and arranged into compact and simple forms, easily accessible and readily available in practice, it is not easy to point out, in the whole of medi-

cal literature, any work by a single hand so much calculated to excite admiration of the industry and talents of the author. In every article contained in the volumes, the reader cannot fail to be struck with the writer's most extensive learning, which has enabled him to collect knowledge from all authorities, ancient and modern, foreign and domestic; and he will, at the same time, be no less surprised than gratified at the singular power which has arranged the whole so lucidly and in such systematic order. As there is no medical practitioner in this country, old or young, high or low, who will not derive great pleasure and great profit by consulting them, so we think there is no one who should not add them to his library." The American edition contains voluminous and important additions, and is even more worthy of Dr. Forbes' commendation of the London edition, as given above. The American *editor and publishers* have done a good work, and should receive their reward. O. C. G.

A Treatise on the Venereal Disease. By JOHN HUNTER, F.R.S. With copious Additions, by Dr. PHILIP RICORD. Translated by FREEMAN J. BUMSTEAD, M.D., &c. Second edition, revised, containing a Résumé of Ricord's recent Lectures on Chancre. Philadelphia: Blanchard & Lea. 1859.

In all parts of the world the work of John Hunter on Venereal Diseases is as well known to medical men as the works of Shakspeare are to the lovers of dramatic poetry, and we do not deem it necessary to occupy any time in discussing the well-known merits of the author, whose name gives a title to the book under consideration. But around the work of John Hunter are ranged the notes of Ricord, Babington, Fournier, and, last of all, Dr. Bumstead.

M. Fournier is interne at the Hôpital du Midi, and has published a volume of the recent lectures delivered by Ricord on the subject of chancre. The translator has incorporated parts of Fournier's work into the present edition, and thus the changes which have taken place in the views of Ricord are scattered through different parts of the work. To our mind, it is a question whether the profession in this country would not have preferred a translation of the entire volume of M. Fournier, rather than to have had it eviscerated and served up in fragments, intermixed with portions of other authors. As Dr. Bumstead's book now appears, there is a lack of method in the arrangement and discussion of various important subjects, which produce no little confusion in the mind. The reader feels the need of exercising con-

stant vigilance, else he will be in doubt precisely whose opinions he is studying—whether those of Babington, Ricord, Fournier, or those of the translator; in short, there is a lack of that symmetry and clearness so desirable in all extended monographs.

There are many highly interesting matters ably discussed in this book, and whoever has leisure to read it through with care, and in the exercise of a sound, discriminating judgment, will be amply paid for the amount of time spent over its well-printed pages. Statements occasionally occur, however, which are at variance with our own experience, and we believe with that of most men in the profession. The limits of a short notice will not permit us to enter into an elaborate discussion of all these—one only must suffice, by way of illustration. The American editor asserts that there can be no infecting chancre without a corresponding indurating bubo. This, as a universal rule, is certainly incorrect; we have under treatment, at this time, a man who a few months ago had an infecting chancre, and now has constitutional syphilis. He has never experienced the slightest abnormal condition of the inguinal glands on either side. We could advance other instances from our own observation.

While we heartily commend the volume to favorable consideration, from the great amount of entertaining and scientific matter which it contains, we feel ourselves obliged to say that, as a methodical work for easy reference and consultation in the management of venereal diseases, it is not so well adapted to the wants of general practitioners as several other treatises lately published on the same subject. A.

SELECTIONS.

Spontaneous Generation.

It was as easy for the ancients to conceive that animals could be produced from putrefying matters, as it is difficult for the instructed physiologist of our day to conceive any generation whatever, except that by *direct parentage*. Aristotle found no difficulty in believing that worms and insects were generated by dead bodies, and that mice could become impregnated by licking salt. The successors of Aristotle were even less skeptical than he. They were constantly observing animals and plants suddenly springing into existence where no animals or plants had been before. Every dead dog or decaying tree was quickly beset with numerous forms of life; how could it be doubted

that the putrefaction, which was observed as an *invariable accompaniment*, was the *necessary cause* of these sudden appearances of life?

To the mind imperfectly acquainted with the results of modern science, spontaneous generation is as easy of belief as it was to Aristotle. Do we not constantly see vegetable mould covering our cheese, our jam, our ink, our bread? Do we not, even in air-tight vessels, see plants and microscopic animals develop where no plants and animals could be seen before, and where, as we think, it was impossible that their seeds should have penetrated? And when we hear that Mr. Crosse produced an insect by means of electricity, startled as we may be, do we really find any better argument than our prejudice for disbelieving such a statement? Where do parasitic animals come from, if not spontaneously generated in the body? These parasites are found in the blood, in the liver, in the brain, in the eye, nay, even in the excessively minute egg itself. "How *gat* they there?" is our natural question. This question, which is so easily answered on the supposition that generation can take place spontaneously, presents the most serious difficulties to science, because the massive weight of scientific evidence has been year after year accumulating against such a supposition; until the majority of physiologists have come to regard it as an axiom, that no generation whatever can occur, except by direct parentage. This axiom, which a small minority has always rejected, has quite recently met with a formidable questioner in M. Pouchet, the well-known physiologist of Rouen; and his experiments and arguments having agitated the Academy of Sciences, our readers may be interested if a review of the whole subject be laid before them.

The first person who assailed the notion of spontaneous generation was Redi, the excellent Italian naturalist, to whom we owe so many valuable observations. I have at this moment on my table the brief, but pregnant treatise, "Experimenta circa Generationem Insectorum," in which he reviewed the facts, and proved that the worms and insects which appear in decaying substances, are really developed from eggs deposited in those substances by the parents. So masterly was the treatise, that no one since then has had the courage to maintain the production of worms and insects spontaneously. It has been held as preposterous to suppose that putrefaction could generate an insect, as that it could generate a mouse—which Cardan believed. Driven from the insect world, the hypothesis has sought refuge in the world of animalcules and parasites; and there the hypothesis is not so easily defeated. Who ever turns over the pages of old Leeuwenhoek, the first who extensively applied himself to microscopic observations, will see that the Dutchman steadily set his face against spontaneous generation, because the microscope showed him that many even of these minute animals had their eggs, and were generated like the larger animals. Since that time thousands of observers have brought their contributions to the general stock, and each extension of our knowledge has had the effect of narrowing the ground on which the "spontaneous" hypothesis could possibly find footing; the modes of genera-

tion of plants and animals are becoming more and more clearly traced; and the necessity in each case of a parent-stock is becoming more and more absolute. It is true that there are organic beings of which, as yet, we can only say that there is the *strongest presumption* against their being exceptions to the otherwise universal rule of generation. We do not know, for example, how the *Amœba* arises; no one has ever seen its eggs; no one has ever seen its reproduction; and, what is more, it is perfectly easy *to make them* in any quantities. I have done so repeatedly. Nevertheless, they can only be "made" under the conditions which would be indispensable for their birth and development if they were really generated from eggs; and that they *are* so generated is a presumption which has every argument in its favor, except the direct evidence of the eggs themselves. The question, then, comes to this: Is it more probable that a law of generation which is found to reach over the whole organic world should have an exception, or that our researches have not yet been able to detect the evidence which would bring this seeming exception also under the law? One after the other, cases which seemed exceptions have turned out to be none at all; one after the other, the various obscurities have been cleared away, showing one law to be general; and it is therefore the dictate of philosophic caution, which suggests that so long as we remain in positive ignorance of the actual process, we must assume that in this case also the general law prevails.

Positive evidence would of course settle the dispute; but every one who has made any experiments, or has attentively followed the experiments of others, will admit that it is excessively difficult to devise any experiment which shall be conclusive. The facts elicited admit of such different interpretations; the avenues by which error may enter are so numerous. I will not narrate here the experiments of Fray, Gruithuisen, Burdach, Baer, and others, since they cannot withstand serious discussion; nor will I adduce my own, for the same reason. But those recently made by M. Pouchet have a more imposing character, and demand the strictest examination. .

The reader will observe that the cardinal point in the investigation is to be certain that no organic germs could by any possibility be present in the liquid which is to produce the animalcules. On the hypothesis that the animalcules, like other animals and plants, are produced from germs, or eggs, these germs must be excessively minute, and easily overlooked.

If they exist, it is in the water and the air, awaiting the proper *conditions* for their development. Supposing them to be floating about in the air, under the form of dust-like particles, they would fall into, or enter, any vessel containing organic matter in a state of decomposition, and *there* develop; as the deposited eggs of the insect developed in the decaying body of the dog. Now, inasmuch as the presence of atmospheric air is one of the indispensable conditions of vitality, and without it the animalcules could not develop and live, the initial difficulty is how to secure the presence of this air, and yet be sure that the air itself does not *bring* with it the germs of the animalcules which

we find in the liquid. Schultze, of Berlin, devised an experiment which was thought to have finally settled this ponit, and to have refuted the hypothesis of Spontaneous Generation. An account of this experiment, to be found in the *Edinburgh Philosophical Journal* for October, 1837, shows that an infusion of organic substances, supplied with atmospheric air, but not with an air containing living germs, was suffered to remain thus, from the end of May till the beginning of August; but, during the whole of that time, no plant or animal was developed in the infusion. The apparatus was now removed from the flask, atmospheric air was allowed to enter freely —without first passing through the acid or potass—and in three dee the infusion wass warming with animalcules.

This really looked like a conclusive experiment. No sooner were measures taken which would destroy the germs, supposed to be suspended in the atmosphere, than the infusion was kept free from animalcules; no sooner was the air allowed to enter the flask in the ordinary manner, than animalcules abounded. The proof did not, however, seem to be quite rigorous. It was by no means clear that the air in its passage through sulphuric acid would not suffer some alteration, perhaps electrical, affecting its vital properties; and this doubt seemed confirmed by the experiments of M. Morren, communicated to the French Academy, May 22, 1854; from which it appeared that air having passed through sulphuric acid was incompetent to sustain life, since the animalcules subject to it died in a few days. But M. Pouchet announces experiments which, if correct, not only scatter this doubt, and M. Morren's confirmation, but point-blank contradict the experiment of Schultze. He declares that in following Schultze's experiment in every particular, and also in repeating it with fresh precautions, he can constantly exhibit animalcules and plants developed in an infusion in which every organic germ has been previously destroyed, and to which the air has only access after passing through concentrated sulphuric acid, or through a labyrinth of porcelain fragments at red-heat. Nay, M. Pouchet goes further. Feeling the difficulty of satisfying his opponents, that the atmospheric air really contained no germs, he determined on substituting *artificial* air. This he did in conjunction with a chemist, M. Hougeau. Artificial air, as the reader knows, is simply a mixture of twenty-one parts of oxygen gas with seventy-nine parts of nitrogen gas. This air was introduced into a flask containing an infusion of hay, the hay having previously been subjected, for twenty minutes, to a heat of 100 degrees Centigrade, (212 degrees Fahrenheit,) a temperature which would destroy every germ. He thus guarded against the presence of any germs, or animalcules, in the infusion, or in the air. The whole was then hermetically sealed, so that no other air could gain access. In spite of these precautions, cryptogamic plants and animalcules appeared in the infusion. M. Pouchet repeated the experiment with pure oxygen gas instead of air, and with similar results.

In presence of such statements as these, only two courses were open to the antagonists of spontaneous generation. They could deny

or disprove the facts; or they could argue that the precautions taken were not sufficiently rigorous to exclude the presence of germs. I have already said how difficult it is for the modern physiologist to admit spontaneous generation, and the reader will be, therefore, prepared to hear that M. Pouchet has roused immense opposition; but the opponents have not disputed his facts; one and all, they accept the statements as he makes them; and by criticism, and counter-statement, endeavor to show that spontaneous generation is just as inadmissible as ever. These criticisms, and M. Pouchet's replies, may here be grouped in order, and with all possible brevity.

Milne-Edwards objected to the conclusions of M. Pouchet, saying: There is no proof that the hay itself had been subjected to the temperature of 100 degrees Centigrade, (or the boiling point of water,) it being very probable that although the furnace was at that heat, the hay, which was in a glass vessel and surrounded with air at rest, was not at anything like that temperature.

To this M. Pouchet replied, that he and M. Hougeau ascertained that the hay *was* at the temperature of 100 degrees, before they proceeded in their experiments.

Milne-Edwards is ready to grant that the temperature may have been reached, but argues that, even that would not suffice for the destruction of all the germs, if they were perfectly dry. He refers to the observations of M. Doyère, which prove that the *Tardigrada* ("water bears," microscopic animals, common in stagnant water,) when thoroughly desiccated, preserve their power of reviving, even after having been subjected to a temperature of 140 degrees Centigrade, (316 degrees Fahrenheit.) If, therefore, animals of so complex a structure as these water-spiders, can resist the action of so high a temperature, there is no reason for supposing that the germs of the simpler animalcules would be destroyed by it. Not content with this argument, which is sufficiently forcible, Milne-Edwards narrates an experiment of his own, which is very similar, both in method and results, to one I have performed. Unhappily, it is an experiment the value of which is either destroyed by the argument just adduced, or else it destroys the argument. It is this: In two tubes a little water containing organic matter is placed, one of them hermetically sealed, the other left open to the air. They are then placed in a bath of boiling water, and kept there till their temperature has reached that point. After this they are left undisturbed for a few days. In the tube which was exposed to the air there were animalcules; in the tube which was excluded from the air, before the action of heat had destroyed all the germs, not an animalcule could be seen.

Is not this something like a proof? "Why, no, sir," as Johnson would have said. At least, not if the argument previously urged is worth anything. Because every one will see that if it be true, as Milne-Edwards maintains, that the temperature of boiling water is not by any means high enough to destroy the organic germs of animalcules, then it could not have destroyed those germs in the closed tube, and animalcules ought to have made their appearance there. If I could

lay any particular stress on my own experiments, (which I do not,) they would lead to the conclusion that the organic germs do *not* resist the action of boiling water; for I found that a piece of fish divided into three, and placed in boiling water in three different tubes, one closed and excluded from the light, the second closed, but exposed to the light, and the third open, and exposed to the light, gave me *no* animalcules at all; had there been any germs in the water or meat, these must have been destroyed. But all such observations go for nothing in the presence of M. Pouchet's assertion that he had found animalcules in the infusion after subjecting the organic matters to a temperature of 250 degrees Cent., (546 degrees Fahr.,) and this, too, with *artificial water*. Unless the germs are supposed to be *incombustible*, it is difficult, he says, to maintain, after this, that the animalcules were developed from germs.

Milne-Edwards being thus disposed of by M. Pouchet, let us see how M. Quatrefages will come off. He says, that having examined the dust remaining on the filter after some observations on rain-water, he found that the organic elements presented a confused assemblage of particles; and this continued to be the case for a few minutes after their immersion in water. But a few hours afterwards, he detected a great number of vegetable spores, infusoria, and those minute spherical and ovoid bodies familiar to microscopists, which inevitably suggest the idea of eggs of extremely small dimensions. He also declares that he has frequently seen monads revive, and move about after a few hours of immersion. The conclusion drawn is, that the air transports myriads of dust-like particles, which have only to fall into the water to appear in their true form as animalcules.

The reply of M. Pouchet is crushing. If the air is filled with animalcules and their eggs, they will of course fall into *any* vessel of water, and as water is their natural element, will there exhibit their vitality. But if half a dozen vessels of distilled water, perfectly free from animalcules, be left exposed to the air, beside one vessel of distilled water containing organic substances in decay, the half-dozen will be free from animalcules and eggs, but the one will abound with them. Now, it is perfectly intelligible that, inasmuch as organic matter is said to form the indispensable condition for the development of the eggs, it is only in the vessel containing such matter that the eggs will develop; but why are they not also visible *as* eggs in the other vessels? why are not the animalcules themselves visible there, as they were in the water examined by M. Quatrefages? If both eggs and animalcules are blown about like dust in the air, it is an immense stretch of credulity to believe they will only be blown into the vessel containing organic matter; but the opponents of spontaneous generation go further even than this, for they declare these dust-like animalcules will be blown into a *closed* vessel, if it contain organic matter, but not into several *open* vessels, if they only contain distilled water.

M. Quatrefages is on better ground when he rejects the evidence, long supposed to be so weighty, of parasitic animals. He refers to the modern investigations which have not only made the generation of

these parasites intelligible, but in many cases have demonstrated it. M. Pouchet's reply is feeble, and unworthy of a physiologist of his eminence. He doubts the truth of the results obtained in Germany, Italy, and Belgium: "the monopoly of which," he adds, "has, by a strange anomaly, belonged to foreigners." Because France has not the honor of this splendid discovery, the Frenchman begs to doubt its value! Every physiologist, however—not French—will be ready to admit that whereas the parasitic animals formerly furnished the advocates of spontaneous generation with their most striking illustrations, the investigations of Von Siebold, Van Beneden, Küchenmeister, Philippi, and others, have entirely changed the whole aspect of the question, and given the opponents of spontaneous generation new grounds for believing that in time all obscurities will be cleared away, all contradictions explained.

In conclusion, I must say that, as far as regards the particular discussion, M. Pouchet seems to me to have the best of it. Their objections to his experiments are all set aside. If the facts are as he states them—and his antagonists at present do not dispute the facts—their criticisms go for very little. They have not shown it probable that any germs could have been present, under the conditions stated by him. Are we, then, to accept spontaneous generation as proven? By no means. It is very far from proven. The massive preponderance of fact and argument against such an hypothesis forces us to pause long before we accept it. What M. Pouchet has done is to destroy many of the arguments against spontaneous generation, and to have devised experiments which may finally lead to a conclusion. It is still on the cards that some source of error, as yet overlooked, vitiates his experiments; but until that error has been detected, he must be considered to have on his side the evidence of experiment, whereas we have on our side the massive evidence of extensive inductions. His experiment may be conclusive, and an exception to the general law will thereby be established. But it may also, on further investigation, turn out to be illusory; some little oversight may be detected which will rob the experiment of all its force.

Perhaps you will ask why this suspicion should be entertained? Why ought we not to accept M. Pouchet's statement with confidence, although it does contradict our inductions? The reason can only be, that the massive weight of these inductions naturally predisposes the mind to believe that it is more probable the experiment which contradicts them should be misconceived, than that they should be contradicted. Two years ago I became acquainted with an observation made by Cienkowski, the botanist, which seemed finally to settle this question of spontaneous generation, to place the fact beyond doubt, because it caught nature in the act, so to speak, of spontaneously generating. Cienkowski's statement is as follows: If a slice of raw potato be allowed to decompose in a little water, it will be found, after some days, that the starch-grains have a peculiar *border*, bearing a strong resemblance to a cell-membrane. This shortly turns out to be a real cell-membrane, and is gradually raised above the starch-grain,

which grain then occupies the position of a cell-nucleus. Thus, *out of a grain of starch, a cell has been formed under the observer's eye.* Inside this cell, little granular masses are developed, which begin to contract. Finally, minute eel-like animalcules are developed there, which bore their way through the cell-wall into the water.

Funke, in his report of this observation, which he says he has verified, asks, How is it possible to deny spontaneous generation here? Before our eyes a grain of starch becomes a cell, in that cell are developed living forms, which bore their way out.

The reader will imagine the sensation which such an observation created. He will agree with Funke, as I did, that if the fact were as he stated it, all discussion was at an end. But *was* the fact as stated? I tried in vain to verify it. Not less than twenty separate potatoes were employed, always in conjunction with ordinary starch, as a point of comparison; but although the animalcules were abundant enough, I never could satisfy myself of the first and all-important step, namely, the formation of a cell-wall round the starch-grain. This was the more distressing, because it is at all times unpleasant to be unable to verify an observation, especially one made by a careful and competent observer, and described in precise terms.

I could not reject what Cienkowski had positively affirmed, and Funke positively confirmed, and was willing to suppose that there was some necessary condition in the observation which I had not fulfilled. On the other hand, I could not reject a doctrine on the strength of a fact about which any doubt was permissible. In this state of suspense I had the satisfaction of hearing from Professor Naegeli, the celebrated microscopist, that he too had been baffled at first in the attempt to verify this observation, but that, after nearly a hundred trials, he had succeeded. He positively confirmed all the statements Cienkowski had made. But, from that moment, my suspense vanished. If the phenomenon was of such rare occurrence, there were reasons for suspecting some other explanation than that of spontaneous generation. What the source of the error was might not be easily divined; but it seemed very probable that error had crept in somewhere.

In the last number of the *Annales des Sciences Naturelles*, (x. 140,) there is a note which clears up the whole mystery. Cienkowski has himself discovered the source of his own error. The membrane which seemed to form itself round the starch-grain has had quite another origin. He has observed the little monads swimming about, and has noticed one of them *adhere to a starch-grain, spread its elastic body round it, and finally envelop it, as the Amœba wraps itself round its food.* This explains how the starch-grain comes to be inside a cell; and as this process was never suspected, and the starch-grain was seen with a cell-wall, the idea of natural formation was inevitable; the more so, as the wall seemed to grow larger and larger.

Thus has even this, the most striking case in favor of spontaneous generation ever adduced, been finally cleared up; and the reader will probably agree in the conclusion to which the whole of the facts advanced in this paper lead, namely, that the law of generation is uni-

versal; the exceptions which have been hitherto urged have, one by one, been found to be no exceptions; and the presumption is that even M. Pouchet's cases will be likewise explained. It is quite *possible* that the generation of animalcules may take place spontaneously; but although possible, it is not probable, and certainly is not proven.

George Henry Lewes.

Diphtheria.

Dr. David Wooster thus sums up an able article on Diphtheria, which has appeared in the *Pacific Medical and Surgical Journal:*

I. Diphtheria is a *specific* disease.

II. It is distinguished from scarlatina, by the absence of eruption; from gangrenous sore throat, by the absence of ulceration and sloughing; from croup, by the aplastic nature of the exudation.

III. Diphtheria may properly be divided into two varieties: the mild and the severe.

IV. The mild is seldom fatal: slight, or no difficulty of deglutition, little fever, no engorgement of cervical glands, neither coryza nor lachrymation, but presenting the positive diagnostic sign of aplastic exudation on the tonsil, palate, or pharynx.

V. The severe is recognized by the diagnostic aplastic false membrane, high fever at first, coryza, lachrymation, engorged glands about the jaw, difficult deglutition, difficult utterance, or complete aphonia, great diminution of animal power, cyanosis, vomiting towards the close of the affection, and intense gangrenous fœtor from the decomposition of the exudation.

VI. Diphtheria is contagious.*

VII. The simple form is easily controlled by treatment which is the same as for the severe form, modified according to the comparative urgency of the case.

* The experience of the French epidemics has made abundantly clear one very important fact in the history of diphtheria, which has not yet been so clearly eliminated from the observed facts of the English epidemic. It may be very clearly shown, by the evidence collected, that contagion plays the principal part in the propagation of diphtheria. There is in this country a great deal of skepticism as to the contagious character of this disease; but the mass of evidence to prove it is overwhelming. Thus, Bretonneau has collected some crucial cases. One is that of M. Herpin, surgeon to the hospital at Tours, and professor at the school. A child seized with diphtheria, who had transmitted the disease already to its nurse, was placed under his care; and at one of his visits, by access of cough, part of the diphtheritic matter was ejected from the mouth while the process of sponging the pharynx was being performed, and it lodged on the aperture of the nostril of M. Herpin. Occupied with his task, he neglected for a moment to remove it. A severe diphtheritic inflammation of the part ensued, which spread over the whole nostril and pharynx. Extreme constitutional disturbance occurred, and the prostration was so severe that convalescence occupied more than six months. Dr. Gendron, of Chateau de Loire, received a shower of tracheal diphtheric exudations expelled by a young patient during an access of coughing. Laryngeal diphtheria set in, with urgent symptoms. Prompt measures saved him.—*Lancet*, April, 1859, p. 288.

VIII. The severe form is with difficulty controlled, and the diagnosis is always extremely unfavorable, even at the beginning.

IX. The treatment is the local application of hydrochloric acid, diluted or not; solution of nitrate of silver, one or two scruples to the ounce of distilled water; strong solution of sulphate of copper, drachm and a half to the ounce of water; concentrated solution of the perchloride of iron; Monsel's Salt, in powder; solution of chloride of sodium, etc., according to the educated judgment of the physician.

Externally—strict cleanliness; in the first stage of the disease, while the engorgement is red and hot, cold, wet compresses applied to the neck, and often repeated, can scarcely fail to relieve, at least for a time. Farther along, when the engorgement of the throat becomes œdematous, warm fomentations should be substituted. Never liniments, mustard, nor anything of the kind; for these appliances increase the anguish of the patient, and do not mitigate the affection.

Internally—first, a thorough emetic of ipecacuanha, given in full dose and largely diluted, so as to be vomited immediately. This should be repeated daily for the first two or three days. The bowels should be moved once a day by glysters, if possible; if not, by some mild laxative. Drastic cathartics should be carefully avoided. Iced milk and water, or iced gum-water, or iced infusion of ulmus fulva, should be given in minute quantity, frequently, as the patients desire. These iced fluids will be found very grateful to them.

Quinine in small doses, say from one-fifth to one-half a grain, often repeated, should materially assist in the tonic treatment universally recommended.* The mixture of "sesquichloride of iron with chlorate of potass, chloric ether, and hydrochloric acid sweetened with syrup," may be employed by those who fancy many not incompatible compounds in one conglomerate. But care must be used not to give this mixture with the milk and eggs recommended in the same paragraph of the *Lancet's* Commission; and yet it is hard to see how this could be avoided, if all are to be given "frequently." I would suggest another remedy combining tonic, nutriment, and stimulus: ferruginated cod-liver oil and brandy, in the proportion of two fluid drachms of the former to one of the latter, repeated four or five times a day, or oftener, if the stomach will bear it.

I believe chlorate of potash harmless, but of unproved efficacy in diphtheria. I have employed it, but saw no results except mitigation of fœtor of expiration, when the false membrane was in the stage of

* Of the many internal remedies which have been advised, we do not know of any on which so much reliance can be placed as on the tincture of sesquichloride of iron, with chlorate of potass, chloric ether, and hydrochloric acid, in the form of mixture, sweetened with syrup, full doses being employed, according to the age of the patient, and frequently repeated. A free use should be made of generous wine, beef-tea, coffee, eggs in combination with brandy and wine, milk, and whatever other form of nutriment the ingenuity of the surgeon or the fancy of the patient can suggest. When food is refused, then enemata similarly composed must be administered frequently, in small quantities of two ounces and upward, that they may not be rejected; for it is of the first importance that inanition should not open the last portals of life to the advancing disease.—*Lancet Commission.*

decomposition. Charcoal, chloride of soda, etc., perhaps act in a similar manner. Ablation of the tonsils at the beginning of the disease, it appears to me, cannot be too strongly insisted upon. Tracheotomy cannot be ignored, but should be resorted to where other means fail to relieve the cyanosis, and suffocation is imminent from obstruction of the fauces and larynx, or even the fauces alone, the larynx being intact. In this latter condition, tubing the larynx should first be attempted.

It is less difficult to prevent this disease than to cure it. The most scrupulous cleanliness of person and surroundings, free and constant ventilation, should be insisted on. If there are many children, and the rooms are small, as frequently happens in families where this disease appears, the well ones should be sent away, if possible; and if not, kept out of the room in which the infected child lies. M. Duche insists on the free use of sulphur as a prophylactic: he says those children who took sulphur were not attacked, in any case; while others, under the same circumstances, fell victims to the malady. It is a simple, harmless remedy, and should be tried as a preventive. M. Duche may be right.

Finally, all our knowledge of this disease may be thus epitomized:

1. Diphtheria is a specific, new, zymotic disease.
2. Its diagnostic sign is an aplastic membranous exudation.
3. The indications of treatment are to remove the exudation, and prevent its re-formation.
4. The treatment is tonic, antiseptic, stimulant, and nutritious.
5. The means of prevention are cleanliness, pure air, free living, and possibly sulphur taken internally.

Conclusion.—Diphtheria is the most *certainly* fatal epidemic that ever visited our race; but it is not *de natura sua* incurable.

Atropine in Epilepsy.

Dr. Max. Maresch, availing himself of his position as physician of an establishment for the insane, at Vienna, has submitted some epileptic patients to the influence of atropine, and has published the results in the *Vienna Journal of Medicine.* Dr. Maresch's experiments were made upon eight patients in the female department, and ten more in the department of the incurable insane; four of these were men, and six women.

Of the eight first patients, three were completely cured, and the condition of the five others was so notably ameliorated, that it was impossible to deny the beneficial effect of the atropine. Of the ten patients belonging to the class of incurables, eight experienced a marked diminution in the violence and frequency of their epileptic attacks, as well as in the exacerbations of their physical troubles. These results, united to those obtained by others in the treatment of epilepsy by atropine, merit serious attention.

Maresch has carefully noted the therapeutic phenomena which have

arisen during the administration of this remedy. One-fiftieth of a grain of atropine gave rise, in every case, to effects which habitually follow the administration of this agent, such as dryness of the throat, difficulty in articulating, visual aberration, dilatation of the pupils, etc.; phenomena to which by degrees the patients become habituated, which, however, do not cease during the entire treatment. In every case the pulse lost eight or twelve pulsations during the first hour after taking the remedy, but the pulse resumed its normal frequency so soon as the other therapeutic phenomena manifested themselves. There did not occur, in any case, a marked and permanent acceleration of the pulse under the influence of the dose above indicated. As special phenomena, Maresch observed in those cases while under the influence of atropine, an exanthem analogous to roseola, which soon disappeared under the influence of warm baths and the discontinuance of the remedy. It is, besides, worthy of remark, that atropine did not give rise, in any case, to digestive derangement, or any other unfavorable symptom.

The administration of this remedy has not proved beneficial in the other forms of mental diseases. Dr. Maresch administers atropine as follows: he dissolves a grain of it in five hundred drops of rectified alcohol, and of this solution he gives from five to ten drops, (from one-hundredth to one-thirtieth of a grain.) This dose is administered once, in the morning before breakfast, from which coffee, tea, and chocolate must be excluded, as these substances interfere with its action. This is continued from sixty to ninety days, without interruption, then is to be resumed after an interval of from thirty to forty-five days. With women, there is no need to suspend its administration during menstruation, as its favors and augments this discharge. Rarely does atropine give rise to constipation, more frequently to diarrhœa, which necessitates, when it becomes severe, a suspension of its administration for some days.—*Translated from L'Union Médicale, by* S. E. C. —*N. O. Med. and Surg. Journ.*

Reflections upon the Use of Raw Meat in the Colliquative Diarrhœa of Infants at the Breast. By Dr. J. F. Weisse, Director of the Hospital for Children, at St. Petersburg.

A period of seventeen years has elapsed since the attention of my confrères was called to the great value of this remedy in this disease, but it did not come into general use until five years later, and after the publication of more extensive works upon the subject. About this time, Dr. Behrend, of Berlin, addressed me a letter which contained the following passage: "You cannot imagine how much interest your communication upon the treatment of the colliquative diarrhœa of infants at the breast, by raw meat, has excited; we now use it exclusively in this disease." Soon after, Dr. Behrend inserted in the sixth volume of his journal, a letter from M. Marotte, Physician of the Central Office of the Hospitals of Paris, addressed to Professor Trousseau, in which the author gave a theory to account for the re-

sults which I had obtained. From this latter time, the treatment by raw meat has been generally admitted everywhere, and its utility has become incontestable.

Among the numerous favorable reports recently published, I will cite that of Dr. Eichelberg: "In consequence of the short time which has passed since this treatment was recommended, I have by me only a limited number of observations, (twenty,) but all prove its efficiency. The cases in which infants refuse raw meat are very rare; the majority swallow it with avidity. I have observed two cases which were very striking; in these the children took the meat for several weeks without repugnance; a very great amelioration was felt in the general system; all at once they refused it, as if guided by a natural instinct. The want of osmazome induced the infants to devour the meat, but as soon as the equilibrium was established in the economy, this want disappeared."

Dr. Eichelberg makes use of raw meat only in the treatment of diarrhœa which attacks children fifteen days or three weeks after they have begun to take the breast; the cure is then certain; for myself, in ordering this regimen, I also have employed it in this affection only; and now, after twenty years of experience, I maintain that raw beef, reduced to a pap by scraping, is, to the exclusion of all other medication, the veritable specific for this diarrhœa which causes so much ravage. I am not able to admit the assertion of Mr. Charles Hogg, in recommending beef-tea, so well known in England: "Beef-tea is an excellent aliment, very nutritious, and easy to digest; it replaces completely the juice of the meat obtained by scraping, which is so lauded by Dr. Weisse, of St. Petersburg." I have found raw meat not an aliment for infants, but a remedy for diarrhœa; further, I have never spoken of the juice of meat, but have recommended the muscular substance itself, hashed or grated in such a manner as to be easily swallowed and digested. The end proposed is to cause the muscular substance itself to pass into the digestive tube, and beef-tea has no more effect upon the diarrhœa of children at the breast, than the excellent decoction of meat, praised by Liebig. These two liquid aliments, from the simple fact of their fluidity, traverse too rapidly the intestinal canal. By giving the meat in pap, the solid parts sojourn longer in the intestine, acting by contact, and being able, by exciting the intestinal mucous membrane, to stimulate absorption; it is also probable that this means contributes to neutralize the acidity of the gastric juice. I cannot partake of the hope expressed by Dr. Beer, of seeing cod-liver oil replaced in the Materia Medica by hashed raw meat. Each of these excellent remedies has its sphere of action marked out in the treatment of the diseases of infants; raw meat combats the diarrhœa of the newborn; cod-liver oil triumphs over rachitic affections with or without atrophy.

The treatment of infants by raw meat has come into general use at St. Petersburg, and this use has been propagated rather by proofs of its good effects, than by special writings. The most part of our confrères, employing it when the ordinary means have failed, have also verified the good results obtained by myself. So far as it con-

cerns myself, I have employed this treatment in nearly two hundred cases, and the result has been always satisfactory when the disease was taken in time. I say when the disease was taken in time; for, if the malady is too far advanced, and has assumed the characteristics of gastro-malacia, (softening of the stomach,) a cure is rarely obtained. Sometimes, even in these circumstances, we may succeed in calming some symptoms so fatiguing to the little patient, such as the inextinguishable thirst, and the vomiting.

In a large number of patients cured by raw meat, verminous affections have been observed, and particularly tænia, otherwise very rare at St. Petersburg. Dr. Braun stated this as his opinion, and two years after, a high authority, Prof. Von Siebold, of Munich, expressed the same idea, in the last paper of his interesting work, "*Weber die Band und Blasenwürmer*," Leipsic, 1854: "We should no longer be surprised at the fact, and must credit those physicians who have declared that they have found in many patients submitted to a diet of raw meat, the tænia. And Herr Von Siebold has remarked that in every case the tænia solium was found, and he believes that in all probability, this worm, which is not indigenous to St. Petersburg, has been brought there by the cattle driven from Tocherkask and Podolia. Some weeks before my departure from St. Petersburg, in the month of June of the present year, a tænia, more than ten feet in length, was sent to me by a confrère, to whom I had warmly recommended meat, in the case of an infant aged 18 months. The tænia was expelled after the administration of the ethereal oil of male fern. This remedy was employed because the child, having been cured of its diarrhœa by the raw meat, had several times passed parts of tænia.

I ought not to forget to say that in the hospital for children, which is in my charge, I have often tried, but unsuccessfully, the raw meat in the diarrhœa of children more aged, who were sick from no cause connected with dentition. More frequently this diarrhœa was caused by ulcerations of the intestinal canal. [Excerpta translated from *L'Union Médicale*, by S. E. C.]—*N. O. Med. and Surg. Journ.*

Syrup of Coffee for Whooping-Cough.—When whooping-cough has resisted the agents most ordinarily used, the following syrup, which is the formula given by M. Delahaye, slightly modified, will be used with full success. We have experimented very often, says Dr. Courbassier, in the localities where whooping-cough appears each year with an epidemic character, and it has rarely failed us. Here is the mode of its preparation:

Take eight ounces of Mocha or Martinique coffee, slightly browned, in powder; treat by displacement with boiling water, so as to obtain sixteen ounces of infusion.

Dissolve in this liquid, alcoholic extract of belladonna, alcoholic extract of ipecac, of each 51¼; alcoholic extract of cinchona, gr. xxxvj; add sugar, ℥xvj. Digest on a water bath, and filter.

The dose for children of three or four years is a table-spoonful repeated three times a day. Under this age, the dose should be reduced one half.—*Revue de Thérapeutique*, from *The Druggist*.

The Cholera in Germany.—A letter from the Grand Duchy of Mecklenburg, in the *Augsburg Gazette*, says: "The cholera has broken out with great violence in some towns and villages of this duchy, and many of the persons attacked have died after only four or five hours' suffering. In some of the villages the harvest operations have been suspended for want of hands, sixty to seventy persons having been taken ill at the same time. The disease breaks out first in one place and then in another, sparing for a time intermediate villages, and then turning back on them with increased violence. The ports of Rostock and Warnemunde have not escaped the malady, which was brought there, it is supposed, by a vessel from St. Petersburg. The cholera continues to rage at Hamburg, carrying off from sixty to seventy persons daily."

Test for Sugar in Urine.—*L'Union Médicale* has given its readers long scientific details respecting the best method which the practitioner can use for the purpose of ascertaining the presence of sugar in the urine of diabetic patients; and this conclusion is satisfactory, as it shows that the method in ordinary use is the best of all methods: "It is evident," the report says, in conclusion, "that for the ordinary use of practitioners, the test by the aid of caustic potash, or by lime, is sufficient. A glass tube, a spirit-lamp, caustic potash, or a bottle containing milk of lime, (*lait de chaux*,) are all the articles necessary for the purpose."

M. LONGET has been nominated Professor of Physiology of the Faculté de Médecine of Paris.

EDITORIAL AND MISCELLANEOUS.

Voltaic Narcotism.—Dr. Benjamin W. Richardson, of the Royal Infirmary for Diseases of the Chest, publishes a paper with this title, in the *Medical Times and Gazette* for June 25, the substance of which will doubtless interest our readers. It is proposed to effect local anæsthesia by means of the electric current in combination with narcotic applications. He considers his process as producing deeper insensibility than the freezing process, with no induration of tissue, though the freezing process is, "for the present, most practicable." In comparison with chloroformization, it has the advantage of absolute safety as regards life. We are not prepared to give an opinion on the subject as yet, and only give the process as described by the author.

A narcotic solution is made of 15 grains of aqueous extract of aconite, dissolved in three drachms of spirit and four drachms of

chloroform; this is covered by a piece of clean copper, and connected with the positive pole, and a plate connected with the negative pole is so placed that the current shall pass through the part intended to be narcotized. The solution is applied by means of a small sponge. The battery employed was the chair battery—we presume that known in this country as Pulvermacher's.

In cutting operations on the human subject, the success seems to have been but partial. In a case of whitlow, the current was kept up for two hours, without producing any result except the most superficial insensibility. In a case of strangulated hernia, the following account is given of its effects:

"In preparing the patient for this operation, I placed a copper disc, with sponge beneath, charged with the narcotic solution of aconite and chloroform, and connected with the positive pole of the chain battery, over the line of the incision, while a copper plate, of horse-shoe shape, surrounded with moistened lint, and connected with the negative pole of the battery, was made to encircle the inner plate. The voltaic current was then set up. Owing to the circumstance that the arrangements had to be hastily put together, the circuit was several times broken, giving rise to sharp shocks, of which the patient complained very much. After half an hour the plates were removed, and the operation was performed. During the operation, the patient did not wince or move, but he gave indications as of passive suffering. This was most marked at the moment of the division of the stricture. The patient, afterwards, could give me no defined idea of what he had felt during the operation; and Mr. Hancock agreed with me that the severity of the operation had been effectualy broken. Mr. Wotten has since informed me, that for a few days after the operation there was some superficial vesication over the part where the narcotic solution had been applied, which caused a little inconvenience. The wound, nevertheless, healed favorably."

It will be observed that this case was of doubtful success; and the same remark may be made of others reported. In the removal of a tumor from the shoulder of a woman, after an hour's application of the current, the operation was performed by Dr. Pettigrew. "The patient was unconscious of the entrance of the knife, and of its course; but as the tumor was being dissected out, she gave expression as if suffering from some undefinable sensation, such expression as patients often give vent to during partial recovery from chloroform in the course of an operation. The tumor removed, and the patient calm, she expressed to us that she had no knowledge of having been cut, nor of

the passage of the needles on inserting the sutures; but at some point of the operation she experienced what she called a 'wrench,' as if something was being removed by force."

The result of the author's experience shows that this process *may* be useful in *some* cases, as an aid to the surgeon. The anæsthesia may be explained thus: the narcotics themselves are acting by absorption, and the continuous electric current simply quickens "the capillary circulation in the structures through which it is transmitted, and the absorption process is therefore more rapid and determinate."

Dr. Richardson mentions the objections to the process as these: the time required, the production of some slight pain, and a vesication which he thinks is produced by the chloroform. May not the latter be explained, as Dr. Bird suggested in 1847, by the fact that there is decomposition of chloride of sodium, the chlorine of which, being eliminated at the positive pole, unites with the copper, and forms a caustic chloride of copper? L. H. S.

— Who is not interested in the deaf and dumb? If any one can, without the deepest sympathy, witness their too often unavailing efforts to make themselves understood by their fellows, he must be destitute of a human heart. Public institutions have sprung up abundantly for the education of those who have arrived at the age of ten or twelve years, and this is probably as early as they can be well cared for in such establishments. Before this they need a more careful, more parental oversight than is possible, except in private institutions of a limited number of pupils. From the circumstances of the case, however, the number of persons who are qualified and inclined to take such a charge upon themselves is small, and it is not always easy for those who have charge of young mutes to know what to do with them, although they feel themselves to be entirely unfit to educate them. We believe, therefore, that we are doing a favor to our readers by calling their attention to a private school, in which mutes are received as early as six years of age, and which is under the charge of persons eminently qualified for such an enterprise. Mr. D. E. Bartlett, of Poughkeepsie, N. Y., a gentleman of liberal education, and of large experience in teaching deaf mutes, is the head of the school. Mrs. Bartlett and a sufficient number of teachers assist in making it *home-like* to their pupils, as well as in giving them instruction. And certainly we never saw a school of young children where all seemed to be so happy, at the same time that they were effectually taught the dry rudiments of knowledge. One feature of the school is especially worthy of notice: to wit, that pupils who can talk are also received. The

influence upon the mutes is peculiarly happy. They lose the shyness so often manifested by those who have been shut up to the society of their fellow-sufferers, while they also learn many things more rapidly from these companions than they would from their teachers. But the greatest benefit is derived by those mutes who can be accompanied by their brothers or sisters, for the speaking pupils are also taught the sign-language, and when the children return to their home the mute is not again shut out from direct communication with his family, as must be the case always when no one has been systematically taught to converse with him. Any one who may know of families in which there are mute children, would be doing a kindness to them, by informing them of the advantages offered in the school of Mr. Bartlett.

— A new agent of disinfection and for the dressing of gangrenous wounds furnishing an abundant and fœtid suppuration was recently presented to both the Academy of Sciences and the Academy of Medicine of Paris, by M. Velpeau.

The authors of this discovery are Dr. Demeaux and Mr. Corne; the one a medical practitioner in the South of France, and the other a veterinary surgeon. In their communication, presented by M. Velpeau, they make the following statements, which have been fully corroborated by experiments entered upon in the surgical wards of the distinguished professor, under whose auspices the report was made to the Academy:

1. A gangrenous sore, characterized by an abundant and fœtid suppuration, subjected to this mode of dressing, is almost instantly deprived of all disagreeable odor.

2. Twenty-four, and even thirty-six hours afterwards, the dressings of a fracture complicated with a wound of a bad character, emits no more odor than the dressings of a simple fracture.

3. An ulcerated cancer, giving off an ichorous discharge, with that fœtid odor which is peculiar to it, subjected to this manner of dressing, is almost instantly deprived of the odor, and remains so as long as the dressings are applied.

4. Ulcers of the legs are also freed from odor.

5. Apparatus used in dressing wounds, linen saturated with fœtid pus, poultices impregnated with suppuration, brought in contact with the disinfecting substance, immediately lose all disagreeable odor.

6. Infected fluids, products of gangrene, decomposed clots of blood, sphacelated tissues, the remains of bodies in a state of advanced putrefaction, treated in this manner, are instantly disinfected.

The action of this disinfecting substance seems to arrest the pro-

cess of decomposition; it keeps insects from the sore, and prevents the production of worms.

The disinfecting substance is composed of 100 parts of plaster of Paris and one to three parts of coal-tar. These two substances are rubbed together in a mortar, or in some other appropriate way, producing a powder of a grayish color, and of a slightly bituminous odor. It may be applied to the surface of sores simply in the shape of powder, or, by combining a certain quantity of the powder with olive oil, a paste or ointment is made, which will retain its properties for an indefinite time, if kept in a jar. This ointment is of a dark-brown color, and has a bituminous odor. The oil serves to make the powder cohere, without dissolving it, in such a manner that the new product, by the gradual elimination of the oil, does not lose the property of absorbing pus as long as it is placed upon a suppurating sore. Whether used in the form of powder or as an ointment, the consistence which it acquires is never such as to incommode the patient in the least, or to affect the wound unpleasantly. It can be applied either directly, or with a layer of some thin texture interposed between it and the sore, according to the case or the object to be attained. The direct application produces no pain; it has, in fact, a detersive action—an effect favorable to cicatrization.

This preparation has been used in both the Charity Hospital, by M. Velpeau, in dressing sores, and at the Veterinary School at Alfort, in disinfecting putrid matters, by M. Renault, its director. The latter, at the Academy of Sciences, related his experiments with different substances possessing the same characteristics as coal-tar, such as pitch, tar, creosote, &c., and considered that the pitch, with the plaster, produced equally good results, and had the advantage of not being of so unpleasant an odor as the coal-tar. These facts, M. Velpeau replied, were known to the discoverers of this preparation, but they found in the cheapness of the coal-tar an argument in favor of its general adoption.

The discussion on the subject occupied a portion of two sittings of the Academy of Sciences. At the last of these sittings, M. Velpeau remarked, that its continued use had been followed by results more and more satisfactory, and that it was incontestably a good preparation.—D.

— M. Duchense Duparc believes that he has found in Fucus Vesicularius a remedy for obesity, when it constitutes a disease. He has made several trials of it, and always with good results. He employs the whole plant, stem and leaves, either in decoction or in powder, in the form of pills.

— An article appeared in the *New York Journal of Medicine* during the early part of the year, having for its title "Why do our young men go to Paris?" In this article the author complained of the great mortality in the Paris hospitals in comparison with that in our own institutions, and spoke of the men whose names are familiar as those of the leading men in the profession of that city, as being heads of cliques, and devoured by professional jealousy. To these charges a writer—Dr. Giraud-Teulon—replies in the *Gazette Médicale de Paris*, denying the correctness of the statistics, and flinging back the charge of jealousy in comments upon the Whitney case, which he reviews in the following sentences:

"Professional jealousy, that deplorable wound of the medical body, is not an attribute particularly French, although we are forced to admit its disastrous influence upon public opinion in our midst. At the same time that the *New York Journal of Medicine* draws a not altogether flattering picture of our professional rivalries, we find in the American Medical Monthly a report of a long debate before the Academy of Medicine of New York, which is, in fact, a continuation of the discussion held here upon the tubage of the larynx—a continuation remarkable for its bitterness, as well as for its subject. At the same time that M. Bouchut replied to some misstatements in relation to his laryngean tube, one of his most celebrated predecessors in this question of tubage, Dr. Green, of New York, was accused of having caused the death of one of his patients by the unfortunate introduction of a laryngeal tube, and the injection—not less fatal—of a solution of nitrate of silver into the bronchiæ." A *résumé* of the case is then given, after which the writer proceeds to say:

"It is not necessary to state that Dr. Green had little trouble in defending himself. Could death have been caused by laceration of the tracheal mucous membrane? Assuredly not, as it was found perfectly healthy twelve days after the pretended fatal introduction of the instrument. Could it have been produced by the injection of the nitrate solution? This, too, is difficult to suppose, the patient having passed eight days comparatively well, and even better than before, going into the country, trying new horses, &c.; all this in the interim between the period when the injection was performed and the commencement of the symptoms of suffocation, which took place suddenly eight days afterwards. Everything leads us to recognize in this case a tuberculous cavity, perforating the pleuræ, and some tuberculous ganglions breaking down, at the same time, along and outside of the larynx. The emphysema is not difficult to understand, in connection with the

pneumo-thorax. Another thing, which is also not difficult to understand, is the culpability of the physicians, who placed their error of diagnosis to the account of an operation of an absent confrère. Thus seemed to think the Academy of Medicine, and we are not surprised at this sentiment.

"American physicians can then, with justice, stop their students from going to Paris to learn lessons of jealousy and rivalry. They, as we, have their professors." D.

— M. Eissen has recommended in the *Gazette Médicale de Strasbourg*, the use of quinine, introduced into the air-passages, for the treatment of intermittent fevers. The process consists in the inhalation of quinic ether, a combination made by M. Manette, and first used by M. Pignacci, of Milan.

The substance, still incompletely defined, in a chemical point of view, is obtained by means of the distillation of alcohol, treated by sulphuric acid, (theory of ethers,) in presence of the quinate of lime. The product of this distillation is a liquid perfectly limpid, colorless, of an agreeable odor, less volatile than sulphuric ether, but still sufficiently volatile to evaporate at an ordinary temperature without leaving a deposit. It deserves, then, the name of ether; and its therapeutical action, besides, seems to justify the qualification of quinic, which has been given to it.

Quinic ether, says M. Eissen, fills all the necessary conditions of a good therapeutical agent. It acts, at the same time, *tuto, cito et jucunde.* Inhaled in the dose of a few grammes, (2 to 3,) as chloroform is generally employed upon a compress, it checks a commencing access, and prevents the return of subsequent accesses. In all the cases in which it was tried, the access gradually yielded, never to return, when the fever was simple, or under a very mild form in cases of decided cachexia.

Since the first trial upon patients in Lombardy, who could not be suspected of being slightly affected, other trials have been made by Prof. Groh, at Olmutz, and with the same success. The results have been the same: whether the inhalation was made before or during the pyrexia, the access was lessened in character in a marked degree, and the next anticipated access prevented, in the majority of cases; the tumefaction of the spleen disappearing at the same time. The inhalation, far from being disagreeable, was followed by good results, or of a sensation of decided amelioration. We may add that, in their experiments, our learned confrères, whose names we have cited, were careful to establish negative proofs to confirm their judgment. They submitted a certain number of fever-patients to inhalations of pure

sulphuric ether, or sulphuric ether holding sulphate of quinine in solution. The inhalations of pure ether produced no other effect than that of increasing, in an insupportable manner, the hot stage; while in those taking the ether containing the quinine, some anti-periodic effects were observed, after large quantities of the remedy were absorbed; but in severe cases these effects were so slight, after long trials, that the patients themselves solicited more energetic measures.—D.

— It is well known that the infusion of coffee, tannin, camphor, vinegar, acetate of lead, fatty oils, white off eggs, &c., have been proposed in succession, as antidotes to plants, or their alcaloids, belonging to the family of the papaveraceæ, and the solanaceæ. Now, Dr. Garrod prescribes animal charcoal, which, in small quantities, neutralizes, or entirely destroys, the action upon the economy of the solutions of belladonna, of stramonium, and of hyoscyamus, provided that the antidote is administered before they are absorbed. Dr. Garrod cites, in the *Bulletin de Thérapeutique* for 1858, two cases where patients had taken, by mistake, one 60 centigrammes, the other 10 grammes of belladonna, and were immediately cured by the use of animal charcoal. Again, he administered to a dog a dose of aconite, which killed him promptly; while to another dog of the same size, which had taken four times as much aconite, but mixed with animal charcoal, presented no symptom of poisoning. M. Garrod has remarked that animal charcoal, purified or not, acts in the same manner, and that vegetable charcoal, on the contrary, has no effect whatever upon the action of these poisons. He also believes that animal charcoal neutralizes the stupefying action of all the vegetable alcaloids, as quinine, strychnine, and morphine. D.

Inductive Electricity, or Faradization, in Lead Colic.—Of late, much attention has been paid in France to the employment of electricity by induction, or Faradization, as it is called, in the treatment of certain diseases. Briquet, of La Charité, has employed this with success in the treatment of the paroxysms of colica pictonum. The application is not devoid of pain, and the latter is, at times, so great as to demand the anæsthetic aid of chloroform during the operation. A wet sponge is attached to one wire of the apparatus and placed at the upper portion of the recti muscles, and a metallic brush being applied to the other, it is passed over the part of the abdomen most painful, and this is continued until redness is produced, when the pain will disappear. The operation may require repetition in some cases; but if twenty-four hours pass without the reappearance of any pains, no further application of the process will be required. The after-treatment con-

sists in a sulphur bath every other day; the internal administration, daily, of about 4 pints of lemonade, containing from 30 to 40 drops of sulphuric acid.

"A gum potion is also prescribed, containing from 30 to 40 grains of alum; and each night, or every alternate night, as the case may be, a pill is ordered, containing one grain of the watery extract of opium. * * In almost all cases, Briquet has remarked that the bowels begin to act spontaneously from one to three days after the Faradization has accomplished the removal of the abdominal pains." This treatment is interesting from its simplicity as compared with the complex routine heretofore used at this hospital, in the treatment of colica pictonum. The latter extended over six days, and was probably one of the last relics of ancient medication to be found in modern hospitals. Our readers will find it given in detail in Nevins's translation of Trousseau and Reveil's Prescriber's Hand-Book. L. H. S.

Nocturnal Incontinence of Urine.—A writer in the *Bulletin de Thérapeutique* recommends the employment of mastic in these cases. It is given in pills made with syrup. It is necessary that 32 grammes should be administered in four days, if the child is over ten years of age; when under that age, the amount mentioned should be given in six or eight days. If a cure does not result from the first trial, a second trial with a like quantity should be made. But if the incontinence persists after the second trial, it is useless to continue the medication. The failures are, however, exceptional, as two-thirds of the cases have been successful, even in patients from 18 to 24 years, who had been affected with this disgusting infirmity from infancy.—L. H. S.

Guano as an Anti-Syphilitic!—WHAT NEXT!—It seems that guano had been proposed by some ardent searcher after novelties as a specific for all venereal affections, for what reason no one could imagine. Dr. Gamberini, of the Hospital of St. Ursula, at Bologna, has satisfied himself that it does *not* possess such properties, having employed it in two cases of recent blennorrhagia, internally and externally, without success, and being unsuccessful also in an attempt to treat primitive chancre with it. This announcement, we doubt not, will be quite pleasant to those agriculturists who had anticipated *a rise* in the price of guano, in consequence of the increased demand which was expected, when it was announced as an anti-venereal. L. H. S.

— We learn from Dr. C. F. HEYWOOD, the Secretary for New York of the New Sydenham Society, that the publications of that Society for 1859 are ready for subscribers.

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ESSAYS, MONOGRAPHS, AND CASES.

A Monograph on Scarlet Fever. By EDWARD H. PARKER, M.D., late Professor of Anatomy and Physiology in the New York Medical College, &c., &c.

"Il n'est pas de maladie qui décontenance plus le médecin; il n'en est pas dans laquelle on soit plus sujet à tomber dans des erreurs de pronostic, et ces erreurs sont inévitables."
TROUSSEAU.

Than Scarlatina, no disease calls forth from physicians a greater variety of opinions as to its pathology, its treatment, and especially its malignity. Some do not hesitate to say that they encounter it without fear, are sure of success in treating it, and only wonder at, if they do not openly blame, those who confess that they dread its approach, are constantly uncertain of its result, and not unfrequently lose their patients. It ought, then, to continue to be an interesting topic to medical men.

The three distinctive peculiarities of scarlatina which separate it from the other exanthemata (the fact of its being an exanthem distinguishes between it and other diseases) are the eruption, the sore throat, and the frequent pulse, and I therefore proceed to consider each of these separately.

I. *The Eruption.*—This is of a red color, varying from a pure and distinct scarlet to a color which has a decided brown, mixed with the scarlet. I do not intend to say that it is a deep and marked brown, but it can be imitated in water-colors, by adding to the vermilion

more or less of the yellowish-brown color, known as burnt sienna. The vermilion has to be *toned* by the sienna to produce it. This coloring of the surface is not caused by a smooth and equal injection of the superficial capillaries; and thus differs entirely from erysipelas, or any other inflammatory blush. It is caused by a true and proper eruption of a succession of points quite minute, but distinctly preserving a general conical figure, so long as they are not so much crowded as to become confluent. This shape can be seen when they are sufficiently isolated either upon the skin, or upon the mucous membrane of the mouth. As the disease progresses, and the eruption develops itself more and more fully, it loses its distinctness, either by the gradual expansion of the base of the cones, as may be seen in mild cases, or by the too near approximation of neighboring cones, crowding all into a uniform and confused flat mass. Still, in this case, there will be found to be some prominences, as if a few cones of unusual height still continued to project from the otherwise level surface; but they are few in number, as compared with the preceding abundance of them, though sufficient to give to the touch that sensation of roughness which is characteristic of the distinct stage.

The period at which the eruption makes its appearance is very variable. I have seen it quite apparent, and already becoming confluent, within half an hour of the time at which the patient first gave any signs of being ill; and I have seen cases in which it did not appear at all. As a general thing, however, it may be said that the eruption makes its appearance within forty-eight hours of the time in which the patient begins to feel unwell. The place in which it first makes its appearance externally is also inconstant. The neck and upper portions of the chest, the inside of the elbow-joints, the groins, and beneath the knee-joint, are the favorite locations, and in those it is to be sought. Before the appearance of the eruption in any of these places, it can often be seen upon the mucous membrane of the mouth, particularly that which covers the soft palate, and upon and about the tonsils.

The facility with which sufficient light can be thrown upon this surface to enable one to inspect it thoroughly, and the ease of the examination, leave no excuse for neglecting to look at it in all suspected or doubtful cases. There can rarely be any occasion for confounding it with the eruption of measles; which, although it may be seen in the same locality, is of a pink color, and presents in its patches the crescentic form. An intense tonsilitis may more reasonably lead to some doubt or confusion; but, although the tonsils are in both cases highly

colored, as well as the soft palate, a careful inspection will enable one to see that the scarlatinal throat is roughened by the eruption, while that of simple tonsilitis is highly injected, but smooth. But, wherever the eruption first makes its appearance, it increases, in cases of a typical character, (that is, in those which present no anomaly,) for two or three days in intensity, and then, gradually becoming duller and duller, fades away. During its increase, it gives an increased fullness to the whole surface, which is chiefly apparent on those parts which are of great mobility. Thus the cheeks are stiff, the eyelids are not precisely heavy, but feel thick when raised, the fingers when bent feel clumsy, and the hand seems to be covered on its palmar surface with a thicker and denser skin. As the eruption disappears, there is a corresponding disappearance of fullness; and when it has entirely gone, the shriveled appearance is quite as marked as was the previous swelling. Then the cuticle begins to separate, coming off in large pieces where it is thick and firm, as upon the palms of the hands and the soles of the feet; from both of which it sometimes separates itself in a mass, as it were a cast of the surface. From the body it falls off in a more pulverulent way; not, apparently, from any difference in the effect of the eruption upon the cuticle, but because the constant friction of the clothing reduces it at once to powder. Upon the completion of the process of desquamation, for which no definite period can be fixed, varying, as it does, with the intensity of the eruption and the vigor of the patient, convalescence is gradually established, and health returns to the patient.

II. *Of the Sore Throat.*—Mention has been made of the early appearance of the eruption in the fauces and throat. Corresponding with this is the fact that, from its presence, the contraction of the muscles of the throat becomes disagreeable, from a feeling of stiffness which results from it. But the tonsils are the portions most affected by the disease, and not only present the red appearance before described, but soon become enlarged, projecting into the throat, so as to interfere both with deglutition and phonation. It is, in fact, often easy to tell what is the condition of the tonsils as to size, before examining the throat, merely from the change which they produce in the voice. When much enlarged, the effort to swallow produces severe pain, which is referred directly to the region of the tonsils as its seat. Still, there is not usually at this period any ulceration of the tonsillar surface, to which, by its contact with the fluids or solids attempted to be swallowed, the pain can be referred. Externally, these glands are felt very distinctly, and pressure upon them causes pain. In typical cases, pure

and simple, the redness, the swelling, and the painful deglutition continue for about a week, when they gradually lessen and pass away. But in many other cases, ulceration of the tonsils occurs, sometimes to a fearful extent, grayish-white patches present themselves upon other portions of the mucous membrane, or a proper diphtheritis sets in, greatly periling the life of the patient. But these will be spoken of elsewhere as complications.

III. *Of the Pulse.*—More constant and reliable intimations of the presence of scarlatina may be derived from the pulse than any other single symptom. From the first, it is remarkably frequent, rising in the adult to 120 beats a minute almost with the first signs of illness, and soon reaching, in some cases, 140 or 150 beats. It is by no means the pulse of inflammation, but is quick, almost irritable, as if there were an excessive exaltation of the innervation of the heart. It is easily obliterated by pressure, never forcing its way under the finger against decided resistance, but instantly returning with its quick, sharp motion, when that pressure is lessened. When both the eruption and sore throat are absent, as is sometimes the case, the pulse will, by these characteristics, give quite reliable indications of the disease; while the absence of these peculiarities of the pulse will often enable one to avoid mistaking a cynanche, or a roseola, or even a rubeola, for scarlatina. It is hardly necessary to say that an early and accurate diagnosis is often of material importance, not only for the reputation of the physician, but for the safety of others who may be exposed to the contagion, or to allay the fears of anxious friends.

Accompanying this condition of the pulse, we have a dry, hot, pungent-feeling skin, which gives to the hand, firmly applied to it, a sensation which might almost be said to be tingling. It is similar to, though more pungent, than that felt when the hand is placed upon the thorax of a patient suffering from a violent pneumonia.

I proceed to fill up the portraiture of the disease, the outline of which has thus been sketched.

The most common subjects of this disease are children under twelve years of age; those who have gone beyond that time without suffering from it being less and less liable to an attack, as their age increases. Something of this immunity from age alone is probably due to circumstances, and more apparent than real. In this country, at least, few persons live twelve years without being exposed more than once to an epidemic of scarlatina. If, then, at that age, one has not had that disease, the probability is that he is not so susceptible to it as are the majority of children. And yet, two facts seem to show that when

there has been no previous exposure of persons arrived at adult age, they are not so liable to be attacked by an epidemic as young children. The first of these facts is drawn from a paper by Dr. William Douglass,* describing what appears to have been the first epidemic of this disease in New England, and probably the first in this country. Dr. Douglass says, that "in November (1735) it spread considerably in Boston, especially among children," while throughout the whole paper the patients are usually spoken of as children.

The second fact is drawn from a statement made by Dr. Copland, at the meeting of the Royal Medical and Chirurgical Society, held at London, on the 10th of November, 1858, when scarlatina was the topic under discussion. That gentleman stated, that of the patients who had scarlet fever at the Cape of Good Hope, which had not previously been visited by the disease for twenty-three or twenty-five years, "many had arrived at adult age."† It may here be noted, that of adults it is especially apt to attack pregnant females, and is attended with unusual danger to them, causing a premature expulsion of the fœtus, and frequently the subsequent death of the mother.

Scarlatina resembles the other exanthemata in that it *usually* occurs but once in the same patient, but is also like them in that it may recur once and again, even after the first attack has been marked with a good degree of severity.

So many instances may be found in the practice of almost every one, proving that scarlatina is communicable from one individual to another, that it is unnecessary to quote illustrations of it. It is admitted as a fact. That it may be conveyed in clothing is not so generally admitted, and yet my own opinion is very decided, that it may be so communicated. As illustrations of this, reference may be made to a fact which Dr. J. K. Mitchell, of Philadelphia, was accustomed to quote in his lectures. A frock, which belonged to a little girl who was sick with scarlet fever, was sent to be tried on by another little girl, whose mother borrowed it for that purpose, being ignorant of the illness of her friend's child. Without any other known exposure, the

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* "The Practical History of a new Epidemical Eruptive Miliary Fever, with an Angina Ulcusculosa, which prevailed in Boston, New England, in the years 1735 and 1736. By William Douglass, M.D., Boston, N. E. Printed and sold by Thomas Fleet, at the sign of the Heart and Crown, in Cornhill, 1736." This paper has been republished by Dr. Caspar Morris during this year, 1858, as an appendix to the new edition of his valuable Essay on Scarlet Fever, and is well worthy a careful study.

† *Medical Times and Gazette.* London, Nov. 20, '58, p. 535.

second girl, in a few days, broke out with the same disease. I am quite confident that there was no epidemic prevailing at that time. A more marked instance has been communicated to me by a medical gentleman, in whose family it occurred. A servant left his house to attend upon the children of her sister, who were ill with scarlatina. After they had recovered she returned to his house, remaining but a few days, and leaving, upon her second departure, a bandbox in the room which she had occupied. Mrs. —— opened the box to see what it contained, and, finding that it was the servant's clothes, immediately closed it again. In a few days Mrs. —— was attacked by scarlatina. The clothes, upon subsequent inquiry, proved to be the dress which the servant had worn while acting as nurse with her relatives, and which had been packed up by her without any washing, or even airing. Mrs. —— did not touch the clothes, and kept the box open only a moment; but being very near-sighted, was compelled to bring her face close to it, to ascertain its contents. There had been no other exposure, for the disease was not epidemic at the time, and she knew no families in which it could have been communicated to her. It is proper to add, that her husband, Dr. ——, was not engaged in the practice of the profession, and the disease was not brought home by him.

It is probable that scarlatina occasionally springs up anew without the previous existence of the disease from which it could have been generated. A fact within my own knowledge, in which, in three successive years, children of families living in adjoining houses were in the same month of each year attacked by the disease, seems to suggest that there may have been some telluric or atmospheric condition which required only the ripening influences of the month of May to bring forth its fruit in disease. The many possibilities of error in the case, especially as to any contagious communication, forbid argument from it. Dr. Douglass, in the paper which I have already referred to, says, in speaking of the epidemic which was observed by him, "This distemper did emerge 20*th May*, 1735, *in Kingston Township*, 50 miles eastward from Boston; it was no foreign importation, Kingston being an inland place, of no trade or considerable communication."*

The period of incubation of this disease is very uncertain: in some cases it appearing to be only a few hours; in other cases, many days. One of the most striking illustrations of this is given by Dr. Jacob Bigelow, of Boston. In one of the notes appended to his paper on

* *Op. cit.*, p. 178.

self-limited diseases, that writer says: "I knew a patient to be taken with scarlet fever in forty-eight hours after arriving in this country, by a passage of forty days from Europe. In this instance, as no case existed in the ship, the latent period must have been less than two days, or more than forty."* As a general rule, it is safe to say that, if an exposure to the disease is known or suspected, and a fortnight has since passed without the appearance of the eruption or other symptoms, all apprehension of danger may be laid aside.

The first manifestations of the disease are, usually, sickness at the stomach and vomiting, frequently occurring very suddenly, and without premonition. Thus, a child may awake from a quiet sleep and immediately vomit, the other symptoms following in rapid succession. Headache may precede, accompany, or follow the vomiting, it rarely being absent. The pulse is almost immediately found to be frequent, and to present those characteristics which have already been mentioned. The skin becomes hot and pungent, and may even then, if carefully examined, be found to present the eruption. The fauces may also participate in this condition, and not only be dry, but so swollen and tumefied that deglutition is seriously embarrassed. Occasionally, the stiffness of the throat and difficulty in swallowing will appear before any of the other symptoms. Delirium is often observed from the very first appearance of the disease; and scarlatina is, in this respect, peculiar among the exanthemata. This "wandering" of the mind will not usually be apparent, in the early stages of the disease, while the patient is fully awake, but during his sleep, and especially when waking from sleep. It is a delirium of *talking*, rather than of *doing*. When first aroused from sleep, the patient is loquacious, using the most inappropriate words, or talking of very different subjects from those on which he is questioned. In a moment or two, if fully awake, this usually passes off, and he is found to be in the entire possession of his faculties.

The condition of the tongue is of great interest. More reliance has, however, been placed upon its changes than is safe or correct. At first, a thick, white coat spreads over the surface. This is soft, moist, and pasty. After a longer or shorter time, (in one case a few hours, in another a day or two,) red points begin to show themselves through the white coating. These are the elongated and nude papillæ, and by their position give to the surface a striking resemblance

* Nature in Disease, illustrated in various Discourses and Essays. By Jacob Bigelow, M.D., &c., &c. Boston: Ticknor & Fields, p. 45.

to that of the white strawberry. As the case goes on, this white coating separates itself, and, disappearing, leaves the tongue of a scarlet hue, rather dry, and with the papillæ still very apparent. The resemblance is now to a red strawberry, though, to my own eye, it is not quite so striking as that to the white. The diagnostic value of this appearance has been overestimated. The projecting papillæ are not unfrequently seen protruding through a white coat in gastric and enteric fevers. While writing, I have under my care a child with gastric fever, whose tongue resembles a red strawberry, though its color is not quite so bright as in scarlatina.

As to the bowels, there is sometimes a decided constipation; at other times there is a diarrhœa. This variation is important, and to be remembered; for cathartics, and especially active ones, are by no means to be used indiscriminately. The prostration produced by them sometimes adds fearfully to the dangers of the disease.

Thus commencing, scarlatina goes on in a constant manner. The eruption increases in its extent until the whole surface is covered, and deepens in its color until the disease begins to decline. At this time the fever diminishes, the pulse becomes less frequent, the heat abates, the thirst lessens, and the whole condition of the patient improves. The throat, however, continues to be painful for some time after there has been a decided amelioration in all other respects. The delirium, which increases at night so long as the fever increases, and, in cases of a grave character, may be continuous through the day, lessens as the disease abates, but still occurs occasionally at night, till convalescence is fairly established.

Thus I have sketched what may be termed a typical case of the disease, one presenting all its characteristics, and terminating in recovery, without any hindrance to its regular progress. Now, it is necessary to say that such cases are comparatively rare. This regular beginning, rise, progress, and decrease are often seen, but much more frequently there is some departure from this course. These variations, these departures, may be in any part of the disease, and in every particular, from the beginning to the end of the attack. Many are the instances, not only where death has occurred in consequence of them, but, when this has not happened, they have changed the whole life's prospects.

I proceed to sketch those variations which are common and important.

First. *Of Variations which concern the Eruption.*—The fact has already been alluded to, that the eruption does not appear at all in

some cases. These, however, are not of necessity mild in their character, or happy in their end. A most striking illustration of this is thus given by Prof. Trousseau, in his lecture on scarlatina. The patient was "a young American girl in a school at Paris. She had been affected since morning by an alarming delirium. She had an intense fever, and incessant vomiting; the pulse was so frequent that it could not be counted; the skin was remarkably dry. These phenomena caused me to say, when we reached the bedside of the patient, that it was scarlatina; and, in fact, although nothing else demonstrated its existence, my diagnosis was confirmed by the presence of the characteristic eruption upon another young girl of the same school, where an epidemic of scarlatina prevailed. Our patient died before the end of the day." Cases in which the eruption is absent are to be watched for a length of time after recovery appears to be established; for there may arise some of the dangerous sequelæ of the disease, even when they are not anticipated.

The eruption often appears partially; that is, without covering the whole of the surface, but only portions of it. Such cases are ordinarily accompanied by grave symptoms, and this irregularity of eruption is often considered a very grave sign. My own experience, however, does not confirm this opinion. I have seen quite a number of cases in which the progress of the disease has been perfectly simple, though the eruption presented this irregularity. It is generally about the joints and on the side of flexion that these patches present themselves. Especially do they prefer the large joints, the knee, and the elbow, about which they extend in an irregular form; though chiefly upon the more delicate skin, on the under and inner sides respectively.

When the eruption, whether local or general, has, instead of the pure scarlet, the burnt sienna tinge, of which I have before spoken, the case may be considered as a grave one, if in its earliest stages. When the eruption is fading the appearance of this shade is comparatively unimportant, though in this case it is well to be on the guard against sudden and excessive prostration. But it is sometimes noticeable from the first breaking out, and when seen at this period indicates to the physician the necessity of great diligence and watchfulness, for he has to contend with a fearful disease.

Second. *Of the Variations in the Condition of the Throat.*—Many of the cases of scarlatina resulting fatally do so in consequence of changes carried on in the throat, and these changes are among the most difficult to be treated. Instead of the simple swelling of the

tonsils, the stiffness of the muscles surrounding the fauces, and the scarlet color of the walls of the pharynx, we may have a dirty-white, pultaceous deposit upon the surface of the tonsils, or mucous membrane, or both, and the stiffness may amount to an almost complete rigidity of the jaw and throat. Upon removing this deposit from the surface of the mucous membrane, we find no particularly striking appearance beneath it. The surface is red, like the rest of the membrane; possibly a little smoother. On the tonsils there is often found to be underneath it an ulcerating surface, making excavations into the substance of the gland. The exudation may extend, and unless measures are taken to prevent its doing so, is very prone to extend over the soft palate, (being almost certain to appear on the extremity of the uvula, even when it does not cover the rest of the palate,) up to the posterior nares, towards, if not into the Eustachian tubes, and down the pharynx. It is a point of great interest that *this* exudation does not tend to enter the larynx. Why it is so is uncertain, though probably due to the differences in the epithelium of these parts. The fact, however, remains. But let me not be misunderstood. An exudative inflammation, possessing some of the characteristics of this variety, does invade the larynx, but the two are to be distinguished from each other.

The history of the second variety is usually this: The patient in the commencement of the disease has no other than the ordinary symptoms, at least so far as the throat is concerned, and goes on towards an apparently rapid convalescence, when, just as this is expected, the soreness of the throat increases, the pulse resumes its frequency, but is weaker than before, there is a distinct swelling of the neck externally, and internally a blackish-colored deposit is visible upon the fauces. The breath becomes offensive, the prostration extreme. Soon a thin, sanious, irritating discharge oozes from the nose, excoriating all the surface on which it flows. *This* exudation will take its way into the larynx, not always, but inclines to travel in that direction. It is scarcely necessary to add that, under these circumstances, the patient's life is in very great danger. The physician has, in fact, to contend with *diphtheritis*, and in a patient below *par* as to his strength and vitality.

This, like the milder exudative inflammation, may extend in all other directions along the continuous mucous surface, but wherever it goes its effects are much more serious. Sight, smell, hearing, and even taste, have been destroyed or impaired by it, and still life has been spared.

It is to be regretted that it is so much the custom to speak of this condition as being *croup*. There is indeed a covering of exudation upon

the mucous membrane of the larynx, and perhaps the upper part of the trachea; but it is soft, easily wiped off, not at all firm and consistent, and very rarely, if ever, endangers life, by blocking up the air-passages. The danger is from the overwhelming prostration—the effect of the disease directly upon the vital energies of the patient, not of an impeded or deficient aeration of the blood. Under these circumstances, it is as unfortunate as it is erroneous to call the disease croup, carrying with it, as that name usually does, a depressing and perturbing treatment.

I have dwelt upon these different characteristics in the exudations, because, although it is some time since they were first pointed out by Trousseau, they have not been generally recognized by the profession, and yet I am certain from my own observations that the distinctions are well and properly drawn.

Both of these exudative inflammations may interfere with the hearing, either temporarily or permanently. The temporary interference is due in part to the congestion and slight tumefaction of the lining membrane of the Eustachian tube and inner ear, tending to close that passage; and in part to the same effect resulting from the accumulating exudation. But the permanent deafness is due to more serious organic changes. In some cases of the diphtheritic exudation, there appears to be entire destruction of the auditory apparatus, but it is usually the perforation of the membrane of the tympanum that causes the deafness. Our asylums for the deaf and dumb bear abundant evidence to the frequency of this occurrence. I shall avail myself, however, of an interesting paper lately published* by Dr. E. H. Clarke, of Boston, upon perforation of this membrane, to illustrate this point. Of fifty-two cases collected by him, in which the membrana tympani was perforated, in nineteen it was attributed to scarlatina. In all but five of these there was perforation of the membrane in *both* ears. Of the whole number collected by Dr. Clarke, (52,) the cause was unknown in fifteen. If these be excluded, we have remaining thirty-seven cases, in eighteen of which scarlatina caused the perforation; and in one, one ear was perforated in consequence of this disease, and the other by another cause. Thus only eighteen cases are left out of thirty-seven in which perforation was known to be due to other causes than scarlatina. Omitting the case which presents two perforations, one from scarlatina, and one from another cause, and we have eighteen cases attributed to scarlatina, and eighteen to other causes. Now in the first,

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* *American Journal Medical Science*, Jan., 1858.

or scarlatinal eighteen, there were thirty-two perforations, (that is, in fourteen of the cases the membranes of *both* ears were perforated;) while in the second, or miscellaneous eighteen, there were twenty-three perforations, the double perforation existing in only five cases. The fifteen cases which I have excluded in the preceding estimate, in consequence of the cause of the injury being unknown, gave double perforation in only three instances; so that, although there may be some cases among this number caused by scarlatina, there is no comparison for seriousness with those authoritatively attributed to this exanthem. The miscellaneous causes were cold, syringing the ear, measles, pneumonia, typhus fever, pertussis, eczema, puncture, salt-water bath, and teething.

It is in connection with the diphtheritic exudation that we have the formation of cervical buboes. The glands principally affected are those of the deep-seated chain of lymphatics. The swelling and pain caused by them are different from the swelling and hard infiltration of the superficial tissues of the neck. There is not the same tense, solid surface, which to the touch resembles so much the outside surface of a piece of salted pork. The bubo is felt to be underneath the skin and deep fascia, is limited in its dimensions, being usually defined with ease, and is often intensely painful. If the inflammation of the gland goes on to suppuration, the usual signs of such changes are present.

Third. *Of Variations which involve the Nervous System.*—When the nervous system is, so to speak, the centre of attack selected by the disease, the case becomes at once most serious. The severity of this attack may vary from the slightest disturbance to the complete overwhelming of its functions, when a speedy death ensues. I do not now speak of that delirium which has already been described as existing in many cases which may be classed as typical.

In some cases the first symptom of the disease is a violent convulsion, which may be followed by a regular course of the disease, there being no other variation from a typical case. As this is not always so, the occurrence of a convulsion justifies a guarded prognosis, and should lead the physician to watch the patient closely.

But there is another class of cases, not very rare, present to a greater or less degree in every severe epidemic, and which require prompt action, if anything is to be attempted for the benefit of the patient. In referring to those cases in which the eruption does not make its appearance, I have quoted one case of this class from Prof. Trousseau. Here is another from the same authority: "In 1824, at the commencement of that disastrous epidemic which broke out in

Tours, of which I have spoken, we saw, with M. Bretonneau, a young woman die in less than eleven hours, with terrible symptoms—delirium, excessive agitation, extraordinary frequency of pulse; and nothing indicated scarlatina to us, excepting that we were in the midst of an epidemic, and that many persons in the family of this young woman had had it."

A case similar to this in some respects, though differing from it in others, lately occurred in my own practice, and will serve to illustrate another phase of this mode of attack.

On Sunday evening I was called to see a lad, about 12 years old, at a boarding-school. He was dead when I arrived, (a few minutes after I received the summons,) and I obtained this history of the case: On the morning of the preceding day (Saturday) he had not appeared to be well. Some simple domestic remedies were administered, but he grew worse, and the usual medical attendant of the school was sent for. It was eleven o'clock in the evening before Dr. M. saw him, when he found the eruption of scarlatina covering the whole surface, but the patient in as favorable a condition as he could expect. The throat was not very sore, and there was no particular complaint of headache. Directions for the night were left by him, and in the morning (Sunday) he saw his patient again. This was about eleven o'clock. The eruption was then fully out, rather intense in its color, which was a bright scarlet, and the other symptoms the same as at the preceding visit. He left him without any grave anticipations. The patient was carefully watched during the day, an assistant teacher being almost constantly with him. His delirium was slight, his mind wandering chiefly to his studies, of which he was fond, and in which he was remarkably advanced for his age. In the afternoon he was quiet, and about six o'clock in the evening attention was drawn to his being so still. He was found to be just breathing out his last. The body, when I saw it immediately afterwards, was lying in the position of one quietly sleeping. There was no indication of convulsions having preceded death, and I had the assurance of the intelligent attendant that there had been none. In this case, death occurred in less than 36 hours from the time at which the boy was first noticed to be ill.

A case of a similar character, though more protracted, I also give from my own experience. The patient, a child three years and a half old, began to vomit upon waking at his usual hour on Sunday morning. He threw from his stomach undigested food, taken early the previous evening, and seemed relieved. Within half an hour, however, the scarlatinal eruption was observed about the chest and joints, and the

headache, hot skin, and frequent pulse at once developed themselves. On Saturday the patient had appeared to be perfectly well, and had taken a very long walk with his parents. No suspicion of his being ill was in their minds till he vomited. During Sunday the eruption continued to spread from the localities in which it first appeared until it covered the whole surface. It seemed to promise to be a regular case in its progress, though a severe one. There was no delirium, no subsultus tendinum. On Monday it began to be rather difficult to arouse him, and there was marked delirium when aroused. An occasional sigh in the respiration attracted notice, and was thought to justify an unfavorable prognosis. On Tuesday there was more marked coma, the sighing was more frequent, and deeper. Some subsultus tendinum was apparent. There was but little sore throat. The sienna tint of the eruption, which was noticeable on Monday, grew deeper; the teeth and tongue were covered with a brownish crust, and all of the symptoms were aggravated. During Tuesday night the coma increased, and the patient died quietly, and without convulsion, early on Wednesday morning.

In all these cases the nervous centres are the points on which the disease makes its assault. They are, so to speak, overwhelmed by the poison of scarlatina, whatever that may be, and the patient dies, not from any organic lesion, so far as can be discovered,* but from interference with the functions of these centres, upon which life depends.† The succession of phenomena, especially as seen in cases similar to that which was last described, reminds one of the progress of symptoms in a patient who is being brought under the influence of anæsthetics, and it seems to be a proper conclusion that the interference with the functions of the brain is in the same order of sequence, death occurring when the medulla oblongata has yielded to the poison.

It is not in itself, and its accompaniments, that scarlatina is alone fearful; but also in the diseases which follow in its train. These re-

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* Dr. Jacob Bigelow, (*op. cit.*, p. 44,) after referring to three post-mortem examinations of such cases—one in his own practice, and two in that of his friends—says, "in these cases the poison of the disease seems to destroy life, without exciting inflammatory action."

† Dr. William Douglass, (*op. cit.*, p. 181,) makes three classes of varieties in this disease; the first he describes thus: "Those who die the first, second, or third day of illness, by an irremediable necrosis of the œconomy: in such the seizure is generally sudden: a sinking pain in the stomach, an extreme prostration of strength, a titubating, low pulse; in some a stupor; in others a delirium; in some children convulsions: and all of them generally die dozie."

ceive the name of *sequelæ;* and, as generally enumerated, are, some of them, simply the continuance of diseases present with the fever, but which have not disappeared when that abated; while others are new diseases following the fever, but not existing while that was present.

In the first of these classes may be enumerated the affection of the temporal bone, whether in its petrous portion, or in its mastoid cells and process, which sometimes is the result of the invasion of the ear by the diphtheritic inflammation. The destruction of the membrane of the tympanum is not uncommon in the progress of the disease, and is frequently accompanied by the discharge of the auditory ossicula. But when the disease has extended still further, necrosis of the bone is the result, and its removal by the processes which nature sets up for that purpose must take place. This tediously slow removal of the dead bone continues to go on long after every other sign of the fever has disappeared; so that though, in its commencement, synchronous with the scarlatina, it may by its presence, for months, and even years, bear witness to the presence of that disease.

The cervical buboes, which have been spoken of in another place, may also be classed with propriety under the same head. It is comparatively rare that they go on to suppuration, till after the fever has begun to decline, if not to disappear. They may then drag along a slow course, discharging pus for a long time if neglected, and with the continued effect to keep the patient weak and prostrated.

Rheumatism may be enumerated as a disease properly following scarlet fever; that is, it should be classed in the second division of the sequelæ. It is of frequent occurrence, usually is not severe, and on this account may be overlooked, though it is important that it should not be. That patients usually recover from it is a great satisfaction to the physician; but, unfortunately, this very thing may blind him to the grave changes which sometimes result from it, and which need to be encountered at their very commencement. Pericarditis, endocarditis, and pleurisy, may be its companions, and results; while at other times it causes suppuration within the joint which it has attacked, destroying its usefulness, if, indeed, it do not kill the patient. An endocarditis, which has been unnoticed, may be the origin of lesions within the heart, which are not fatal for years. A neglected pericarditis will produce permanent injury of the heart, which, though not of necessity fatal, may make life a burden. There is sufficient authority for saying that suppuration may also take place within the pericardium. When inflammation of the pleura occurs, there is a marked tendency in it to pass into the suppurative stage. Thoracentesis may

be required to remove the pus; but, although there should be no hesitation in performing the operation when it is necessary, it should be remembered that it may leave a fistulous orifice, which will require a long time to heal it. All of these affections may be grouped together, as having a common origin, and consisting in inflammations of serous tissues, for the rheumatism is almost invariably articular. It may be added, that they are not more frequently met with, after severe attacks of scarlatina, than after those which are of a typical character, or even milder than these. The period of desquamation is that in which these diseases are apt to appear.

It is at the same period, and in the same class of cases, that we most frequently meet with a sequela more commonly recognized, and anticipated. I refer to anasarca, with or without dropsical effusions into the serous cavities. More or less complete suppression of urine accompanies this disease, and is sometimes the first indication of changes in the kidney, similar to, if not identical with, those of Bright's disease. But there is no satisfactory evidence that such changes have of necessity taken place previous to the appearance of the anasarca.

The position of the patient has much to do with the locality in which the œdema first attracts attention. In a child that is running about, there will first be a little swelling of the feet and ankles, which by the characteristic pitting, upon pressure, gives distinct proof of fluid in the areolar tissue. This may increase very rapidly, and within twenty-four hours seriously interfere with the movements of the limbs. But if the patient has been confined to the bed, the loose tissue of the eyelids will be first infiltrated, and become puffy, the difference being entirely dependent upon position, and not upon the character of the disease.

The history of these cases of anasarca usually runs in this way: After an attack of scarlatina, mild in every respect, there is, during the period of desquamation, a sudden diminution of the quantity of urine, (what little there is being sometimes tinged with blood,) accompanied by more or less swelling of the feet, legs, and hands. This swelling extends to the body and face, until the patient presents the ordinary pale, bloated, doughy look of general anasarca.

In the majority of instances, with proper care, the anasarca passes off, and the patient is restored to health. At other times, these symptoms are accompanied by grave structural changes in the kidneys, which in time, and it is sometimes after years have elapsed, destroy the life of the patient. In other cases, which fortunately are not common, convulsions suddenly occur, and are the first indications of cere-

bral difficulties, which usually terminate fatally. When pain in the head and loss of sight occur in a patient with anasarca, convulsions are to be feared, and active measures should be taken to ward them off. Care is necessary, however, that a mistake should not be made, by confounding uræmic convulsions, arising from the deficient secretion of the urea, with those which result from effusion upon or within the brain, the result of inflammation of its membranes.

Taking cold, imprudent indulgence of the appetite, or some other similar irregularity, is often pointed out as the cause of the anasarca; but it must be admitted, that it occurs in patients who have been the most carefully and the most successfully guarded from all such influences. And it must at the same time be confessed that the pathology and etiology of the mild cases, especially, are obscure. The statement has been made that albumen is found in the urine of one out of every three scarlatinal patients, if the disease is well marked during the period of eruption; and this, together with the occasional occurrence of hæmaturia at the same period, would seem to point to the kidneys as especially susceptible to the influence of the scarlatinal poison. It is thus very evident that the careful practitioner will give constant attention to the condition of this secretion from the beginning to the end of the attack, and that whether the case is mild or severe.

(TO BE CONTINUED.)

Notes and Sketches preparatory to a Treatise on Diseases of the Tropics; or, Physician's and Surgeon's Vade-Mecum in Tropical Countries. By GERARD VAN ARCHEN, M.D., Bogotá, New Grenada.

BOGOTA, NEW GRENADA, *July* 2, 1859.

EDITORS AMERICAN MEDICAL MONTHLY—In sending you the inclosed manuscript, I feel that I must say a few words to explain its nature; a duty which I owe as well to you as to the public.

Some years ago, while traveling in the plains of Venezuela, I found myself so situated as to have from two to six hours every day to spare. Not knowing how to occupy them, and fearing that, by a long-continued idleness, I might fall into the open arms of some of the fashionable vices, I determined to commence a general work on diseases of the tropics, which might serve as a practical guide for new-comers, and by means of which they would save most of the time which I had to lose in studying each disease. But I soon saw that such a work would have too little interest; and although I tried to enhance its value by

giving a short description of the modifications which each disease undergoes in tropical countries, still it did not satisfy me, and—was buried in my portfolio.

Some weeks ago the manuscript again fell into my hands, and an idea struck me that it might serve in a more condensed form. Accordingly, I set to work, and included you find the first series of it, in the form of notes and sketches. As soon as the balance is concluded and a good opportunity offers itself, I shall send it on.

Yours truly, G. VAN ARCHEN.

Prostration, or Collapse.—The most frequent causes of prostration are, great and sudden extremes of fear, grief, or joy; the depressing effect of some poisons, as arsenic, tobacco, etc.; a sudden shock to the nervous system, consequent upon a great loss of blood, mechanical injury, or some surgical operation.

Prostration becomes very dangerous in hot countries, on account of the low tide of the vital powers, which hardly ever contain, of themselves, the necessary strength to bring about a complete and ample reaction.

If the prostration is purely functional—that is, unconnected with any mechanical injury—a glass of old Madeira or Sherry wine will assist the system in rallying; habitual drinkers, however, require several strong doses of brandy-and-water, to which some cinnamon or ginger may be added.

But cases brought on in consequence of some injury or operation are apt to be of a much more serious nature. Warmth and circulation must then be restored by heated bricks or bottles of hot water to the soles of the feet, between the thighs, or under the axilla, and frictions made all over the body with hot brandy, strengthened by liq. ammon.; while vomiting is best allayed by a large dose of opium, or a blister to the epigastrium.

Convulsions, delirium, and coma must be treated according to the degree of reaction; taking care, however, never to lessen the vital energies, which may always be done by withdrawing for two or three hours all stimulating medicines.

In one desperate case of prostration from epistaxis, I succeeded in saving my patient by making a partial compression of the brachial and femoral arteries, for the purpose of keeping the blood in the vital organs, and giving half-ounce doses of tincture of musk, at intervals of three hours. Everything else had failed in this case; even the si-

multaneous exhibition of five blisters produced only a slight and temporary reaction.

There is little danger of overstimulating a patient. Whenever a point is reached at which this might happen, then suddenly the skin and kidneys rush to the rescue, and, by a powerful diuresis and diaphoresis, obviate any evil consequence.

Hard drinkers always perspire very much, which fact has made them believe that a profuse perspiration is indispensable to health. Still, it requires but little knowledge of the human body to see that, in such cases, the profuse perspiration is nothing but an act of rebellion of nature, manifested by throwing off its too heavy load of ardent spirits by one tremendous effort.

Hæmorrhage.—One of the most common diseases in hot climates is hæmorrhage from the womb, or menorrhagia. It happens in subjects of all ages and conditions. On examination, it will mostly be found to be a passive or venous flooding, caused either by a chronic inflammation of the womb itself, or by an impediment to the return of the venous blood to the venæ portarum. As a palliative, the os uteri should be plugged with a sponge soaked in the following solution:

℞.—Sulph. Zinci,
Sulph. Alumin. et Potassæ, ää., ʒss.
Aquæ Fontan., ʒiij. M.

The vagina may also be filled with a sponge thoroughly soaked in cold water, to be frequently renewed, and the vulva and hypogastrium kept covered with cloths wrung out of iced water.

But to effect a radical cure, besides removing diseases of the womb itself, there will generally be found to exist a complication with some disease of the liver, stomach, or spleen; and before such a complication be removed, any remedy directed against the womb itself is worse than useless.

When the cause of the flooding is difficult to account for, I make it a habit to give large doses of gum kino, with a little alum added, until the hæmorrhage ceases, and then to administer some drastic purges; returning to the astringents as soon as the flooding returns.

In the course of this treatment, then, I have ample time to examine and observe the patient at leisure; a thing frequently by no means easy, for women in this country object very much to vaginal examinations. Besides, being of a stubborn nature, they prevent the physician, by all possible means, from making a correct diagnosis, instead of assisting him.

Venesection.—Of all the operations of minor surgery, none is less frequently employed or performed in hot countries than blood-letting.

A prolonged residence in the tropics reduces the plastic substance of the blood to such an extent, that no morbid process or infection can make it desirable to reduce it also in quantity. I have only bled twice in nearly ten years of practice: one was a case of active aneurism of the heart; the other, apoplexy in a plethoric subject; both patients died, but, as a matter of course, that had nothing to do with the bleeding.

Although I have attended to more than 1,400 patients of yellow fever, I have never bled a single one; and still, my highest mortality was, in Vera Cruz, 34 in a 100, and my lowest, at Port au Prince, 21 in a 100. If it is necessary to reduce a patient, a two days' weak broth diet, with occasional doses of tartarized antimony, will bring him low enough.

Still, in some exceptional cases, bleeding may become imperatively necessary. In such cases, a pretty tight bandage should first be applied at about three inches above the elbow, and the part below it then well wetted with hot water. Without this expedient, it will sometimes be very difficult indeed to find the median cephalic vein; a thing by no means easy in dark-skinned and rather fat people.

Most commonly, leeching and cupping are sufficient, especially if the disease be local. Leech-bites do sometimes become troublesome, after bleeding. I have never found any difficulty in controlling it, by rubbing some sulphate of zinc or calcined alum into the wound.

Chloroform.—The administration of chloroform, whether for the purpose of producing anæsthesia, or for calming pain, should always be done with great caution, and never be carried any further than the 3d degree, or that of profound sleep. An assistant should attend only to the inhalation process; he must watch the patient closely, and give another dose as soon as symptoms of coming-to occur.

It takes much less chloroform to produce this effect in a native of the tropics, than in an inhabitant of a more northern climate. Consequently, there is also more danger of giving too much, that is, of chloroformizing the patient into eternity.

Besides the general rule, of never giving it to those who suffer from organic disease of the heart or lungs, or from epilepsy or asthma, I would add the one of never giving it to those who suffer from chronic nervous disorders; for in these cases the morbid sensitiveness of the nerves, after being overcome by chloroform, suffers a sudden collapse,

and instantaneous death follows, either from paralysis of the heart, or sudden cessation of function of the pneumo-gastric nerve.

Effects of Poisonous Insects and Serpents.—The most common of the poisonous insects is the scorpion, the bite of which, although so much dreaded by nervous and apprehensive females, is never of any consequence. The Indians in some parts of the Spanish Main, after being bitten by a scorpion, take a leaf of tobacco, chew it for a minute or two, and when it is well saturated with saliva, lay it on the bitten place.

I was myself once bitten by a scorpion in the point of the little finger; it produced a feeling as though a very fine needle was deliberately being pushed up between flesh and bone. Five minutes after the application of a tobacco-leaf, all pain suddenly disappeared, as if by charm; but I suppose touching the wound with an alkali does just as well.

The fabulous tarantula, of South America, about which travelers, who never saw the animal, tell such horrible stories, produces simply some swelling, which is easily cured by scarification and cauterization, together with an occasional internal dose of liq. ammon. arom., or aromatic alkali.

The rattlesnake, called in Spanish *culebra-cascabel*, and a variety of the cobra, are the only animals whose bites are really to be dreaded.

As soon as possible after being bitten, the part should be bound above the wound, for the purpose of trying to prevent the poison from being carried into the circulation; the whole bitten part should then be cauterized by caustic potash, or the red-hot iron. A solution of arsenic, containing about a grain, should then be administered every hour, until copious purging follows. The swollen parts may also be rubbed with strong liniments, and the patient must be kept awake by washing head and face with cold water, and holding ammonia occasionally to the nostrils.

Should the skin of the swollen parts become much distended, long incisions may then be made, for the purpose of letting the extravasated fluids escape; after that, emollient poultices, mixed with plenty of powdered charcoal, may be applied.

Guinea-worm, or *Filaria medinensis*, is sometimes met with in this country, and the natives make a great deal of noise about no physician knowing how to get it out of its lurking-place, under the skin. I have only once been called upon to cut one out; and in that case, after having made a long incision, exposing the animal to view in several places, I commenced tickling him all over with a cataract needle, dipped

frequently into a strong solution of strychnine. Only twelve hours afterwards he could be removed, piecemeal, with the greatest ease; I then cleaned the wound with black wash, and filled it with small bits of lint; in eight days it was entirely healed.

Pulex penetrans, or jigger, also called sand-flee, is another troublesome little animal, which mostly buries itself under the skin near the toes, where it envelops itself with a cyst, in which there is also a number of eggs, floating in a muco-purulent fluid. I introduce one point of a scissors into the bag, and, by making with the hand a circular movement, cut out a round piece of skin. I then remove the contents with a common *curreite*, and rub a little calomel into it.

I must caution physicians newly arrived in the tropics against the extravagant stories of the natives about tetanus resulting from the extraction, by foreigners, of either of the two last-named parasites. This is done partly from ignorance, and partly from cupidity, they wishing to get a few dollars for martyrizing you a couple of hours, pretending all the time not to hurt you at all.

I have extracted from my own feet at least 200 jiggers, without any evil consequences whatever; nor have I ever heard or seen of a case of tetanus produced by treating these little annoyances after my fashion.

Whitlow, or Paronychia.—This is a complaint which frequently occurs during the period of convalescense of typhoid fevers, or to foreigners shortly after arriving in the tropics, especially if they have not purged themselves well.

If called to a case, still in its beginning, I order two ounces of saleratus, or crude carbonate of soda, to be dissolved in about four ounces of boiling water; in this the finger should be held until the solution cools, which should then again be warmed and kept applied for three or four hours. In nearly all the cases, this abortive treatment is sufficient to effect a cure.

In more advanced cases, the whole finger should first be wetted and then rubbed with a solid piece of nitrate of silver until the skin becomes discolored; the finger must then be kept in an emollient poultice, until, at the end of thirty-six hours, the whole of the cuticle peels off, and the cure is complete.

But as soon as lancinating pain and throbbing occur, a sure sign of suppuration, the finger should be cut open to the bone, and, after bleeding has been encouraged by tepid water, be dressed with simple dressing. During this treatment an occasional dose of salts may do good, and afterwards some vegetable tonic be required.

Abscess.—Abscesses may form in all parts of the body, and at all times; but those which are peculiar to hot climates occur during the convalescence from yellow fever, and fevers of a typhoid character in general.

These mostly happen in the muscular, and only occasionally in the cellular tissue, and are caused by the immense amount of repair which nature requires to restore the dilapidated organs.

As soon as fluctuation can be made out, they should be opened by a large incision; emollient poultices should then be applied, followed, as soon as suppuration ceases, by simple dressings, while the strength must be supported by tonics, etc.

Scrofulous Ulcers.—I doubt whether there is a country in the world in which more people suffer from scrofulous ulcers than the shores of the Magdalena River. Being found by far more frequently in the males, and occupying either the ankle-joint or the lower end of the tibia, therefore constantly exposed to view, they give the people a most disgusting aspect.

The class of people among which these ulcers are mostly found belong to the lowest order of society, viz., boatmen and field-hands.

Their earnings are very small, and their profligate dispositions induce them to spend on Sunday their entire weekly wages in liquor, which compels them to live the next week on raw plantains, or anything which chance throws in their way. Besides this, their constitutions are saturated with syphilis in all its forms, and although they may newly contract it or gonorrhœa, they are too indifferent to care anything about such trifles, and just let it run, until nature or accident stops them.

How soon in such people a small sore or pimple will be converted into a ghastly-looking ulcer, is easily imagined. It is but seldom that cases of this kind come under the hands of a physician; but when they do, they should be treated as any irritable ulcer.

The edges being mostly thick and elevated, they should be freely incised crosswise and lengthwise, the whole mass then touched with a strong solution of chloride of zinc, to destroy any semi-ulcerated tissue, and decompose the general putrid production.

Fomentations, with a decoction of poppy-heads, or emollient poultices, may now be applied, with an occasional repetition of cauterization, until the entire wound assumes a clean and healthy aspect. Dressings of simple cerate may then be applied, and the whole treated upon general principles; taking care, however, never to apply anything irritating, for soon afterwards the ulcer assumes its old indolent aspect again, and the whole process of cure must be commenced anew before

it can be brought to a termination. Of internal medicines, an occasional dose of calomel and jalap, so as to affect the system slightly, is all that is required. In cases attended with great debility, the strength of the patient must be supported by a nourishing diet and tonics.

This system of treatment has only failed twice in my hands, and in these cases I succeeded at length, by washing the sore three times a day with cold water, and then applying dry lint, made of very coarse linen.

Burns.—Burns, unless they be very extensive, do not frequently come to the notice of the physician. This is not owing to their not happening; on the contrary, the mothers of the lower classes frequently leave their babies for whole days alone, either asleep in a hammock, or, worse still, on the floor, from both of which places the little ones frequently find their way to the fire.

The most severe case of burn I have attended to was brought to me while making a temporary stay at a sugar plantation, for the purpose of attending to a typhoid fever patient. It was a little girl of eight months, which had rolled out of the hammock into the fire, while its mother was taking a dance at a wedding in the neighborhood. The burns extended over the entire scalp and the right half of the body.

While looking around for something that might be of use in such an emergency, oil, lime, cotton, lard, flour, etc., nothing was found. I then recollected that an American lady had once told me of a Dr. Warren in Boston, who used to employ a silk handkerchief, wrung out of brandy, for the purpose of drying old sores up. As brandy was on hand, I determined upon trying it here. I took one part of it, diluted with two parts of water, and applied rags wrung out of this to the previously emptied blisters. I left them plenty of the said mixture, with directions to keep the parts well wetted with it.

Very little constitutional irritation followed, and at the end of three days the rags came away, and the cuticle with them, a new one being already formed. In six days the little patient was crawling about again.

The most remarkable thing in this case was the entire absence of any of those ugly cicatrices, so common in burns.

In ordinary cases, the usual mixture of lime-water and olive oil, followed by a weak solution of nitrate of silver, is all that is required.

Pyæmia.—This disease, caused either by the absorption or production in the blood of pus, is by no means so dangerous in hot cli-

mates as it has been proved to be in colder latitudes. I have lately seen five cases of it, all well defined.

Of these, two were puerperal fever, or, as I call it, endo-metro-peritonitis; the other three were caused by retention and suppuration of a part of the placenta; all five recovered.

First of all, in such cases, the strength must be supported by tonics and mineral acids; the alvine discharges produced, which are always productive of much good, even when amounting to a slight diarrhœa, and should never be interfered with, unless bloody stools are passed. Powdered charcoal may then be given in large doses in injections, and in ʒj. doses by the mouth, together with antiseptic baths and frictions, creosote, etc.

The appetite and craving of patients for some particular articles is so strong in this disease, that I do not consider it advisable to disregard it entirely; on the contrary, considering it a special call of nature, I let mine partake in moderate quantities of everything which is not contra-indicated by the disease.

Circumcision.—This operation becomes sometimes necessary, on account of venereal ulcers underneath the prepuce, it being impossible to bring them to view on account of the phymosis, whether that be congenital or accidental.

To perform circumcision, I proceed in the following manner: The patient being slightly put under the influence of chloroform, I pull the prepuce forward as far as possible, and there, where I want to cut, take hold of it firmly between the blades of a forceps. Six fine needles, each with a waxed-thread attached, should then be passed through both thicknesses of the prepuce, at about two lines from the forceps towards the penis, and the prepuce then cut off by one sweep with the scalpel.

The wound immediately draws itself back upon the penis, converting thereby the six threads into twelve sutures, which may then be tied, and a cold water dressing applied to the whole.

Circumcision of children of Jewish parents is sometimes requested; it should be performed in the same manner, minus the administration of chloroform; and, on account of the small size of the prepuce, it may also be cut off by a pair of scissors, and the lining membrane slit up in four or five places, by the nail of the thumb.

Cancer.—This is another of the diseases which abound in tropical countries.

It sometimes occurs in the womb; although its most frequent seat is either in the testicle, face, tongue, or breast.

The tongue and face are also very liable to epithelioma, and the wings of the nose to lupus exedens, which is apt to run in whole families. In cases of true cancer and epithelioma, early recourse should be had to extirpation, as offering the only hope, if not of cure, at least of relief for a year or two; in lupus exedens the parts should be repeatedly cauterized with a paste made of one part of chloride of zinc, and two parts of starch or flour, made into a paste with a few drops of distilled water.

Of internal remedies, I have seen great benefit derived from a long-continued course of Plummer's pill; although in broken-down constitutions I prefer arsenic with conium maculatum, or a solution of iodide of iron in wine.

External applications, if radical cure is out of the question, should be selected, for the separate qualities they may have of allaying pain and irritation, enabling thereby the patient to die in peace of mind and body.

Amputation.—The question of amputating a limb is but seldom raised in hot countries. The entire absence of high buildings, wagons, machinery, and steam-engines, makes fractures not only very seldom, but also, when they happen, exceedingly simple. Besides, if the patient get only plenty of nourishing food, the vis medicatrix naturæ is mostly so strong, as to repair damages of an incredible amount. Amputation should therefore never be proposed, unless it be imperatively demanded, by the part being either lacerated or mashed, as sometimes happens in sugar-mills, or by the occurrence of gangrene.

While living in Honda, New Grenada, I was requested to attend to a mule-driver, whose leg had just been broken. A piece of iron of over 300 pounds weight had fallen upon the ankle-joint, mashing the internal malleolus into atoms, fracturing the os calcis in three parts, and the lower ends of the tibia and fibula into innumerable small pieces, besides producing pretty severe laceration of the soft parts.

Now, in the North, many a surgeon would have amputated right off; I did not amputate; and at the end of three months I discharged my patient with an anchylosed joint, but fully able to go to work again.

Neuralgia.—Under this head, I have to mention a peculiar kind of neuralgia, occurring only in people who have worked for years in tobacco factories, besides being habitual smokers. In these, the body becomes so thoroughly saturated with nicotin, that occasional twitching of the muscles of the face occurs, which ultimately becomes an agonizing pain, making the patient scream in horror.

I found numerous instances of this disease in Santa Domingo, San Salvador, and Ambalema, all tobacco countries; they offer the additional interest, that all that class of medicines called antispasmodics and narcotics, not only have no curative effect over it; on the contrary, they most always aggravate the pain. The following formula is almost a specific against it:

℞.—Sulphatis quininæ, grs. viij.
Pulveris cinchonæ,
Ferri carbonatis, ää., ℈j.
M.—Divide in 4 powders.
S.—One every 6 hours.

After the most urgent symptoms have been relieved, I give three times daily thirty drops of the tincture of tartrate of iron in about a table-spoonful of some generous wine. This, and a change of occupation, is sufficient to effect a cure in about six weeks.

Semi-rheumatic pains occur sometimes along the course of the sciatic nerve, and also in the lower jaw. It may be that they are produced by the same cause, although the same remedy does not influence it at all. I am in the habit of prescribing the following for it:

℞.—Vini radicis colchici, ℥j.
Tincturæ opii, ℥j.
Extracti aconiti, ℈j.
Iodid. potassii, ℥ij. M.

Of this I give thirty drops three or four times daily; and if the pain be superficial, I have the entire painful part slightly painted by it, repeating the application every morning and evening.

Tetanus.—Idiopathic acute tetanus is a truly terrible disease; it occurs suddenly in healthy subjects, without any cause or reason whatever. It frequently terminates fatally, leaving, however, hardly any pathological lesions behind, by which to account for its extreme violence and fatality.

In the treatment, it is necessary to diminish the centric irritation, depending on a congested state of the spinal membranes; to relieve the abnormal excitability of the nervous centres, and, towards the end, support the strength.

In cases of traumatic tetanus, all that can be done is removing the exciting cause, if that admits of removal.

While living in Venezuela I attended to a case of "*tetanus of the penis,*" or a continued spasm of the erector muscles, lasting the enormous time of *twenty-eight days.*

In the beginning, the patient tried to relieve himself in "*the natural*

way;" after that, all the resources of the Materia Medica and ingenuity were exhausted, but with no effect at all.

Bleeding, blistering, scarifying, cauterization, poultices, cold water, emetics, purges, salivation, tonics, antispasmodics, narcotics—all were tried in vain. At that time the patient appeared ready to succumb, when it occurred to me to try the celebrated *similia similibus* principle, by giving strychnine. I made three grains of strychnine into nine pills, and gave one every hour. With the fourth pill a decided amelioration was experienced, and when the sixth had been taken for about a quarter of an hour, a sudden vibratory spasm shook the entire frame; it only lasted about three seconds, and at its end the disease had given way, as by charm.

The most singular features of this case were, that the spasm never extended to any other part of the body, and that in the twenty-eight days of duration of the disease the patient had something like 58 or 60 seminal emissions, which, together with a very deficient alimentation, brought him very near the grave; so near, indeed, that many an evening I considered it impossible for him to pass the night.

Amaurosis.—The most common variety of this disease is the inflammatory. It is mostly brought on by a sudden exposure to a draught of night-air, or sleeping on the wet ground, the body being heated by traveling, dancing, or any other violent exercise. Frequently it coexists with a disposition to rheumatic or gouty pains.

In the beginning, when the flashes of light are frequent and strong, it will be necessary to apply, say, about half a dozen cups to the nape of the neck. An active cathartic may then be given until the bowels have been effectually cleaned. After that, one of the following powders may be given every night or morning, for about a fortnight:

℞.—Flores sulphuris,
Potassæ bitartrat., ää., ʒj.
Resin. guajaci, ʒij.
M.—Divide in 8 powders.

If this does not prove sufficient, a mercurial alterative may be given in combination with ext. conium maculatum. Its action must be kept up for a considerable time, and should then be followed by scruple doses of iodide of potassium in colchicum wine.

Counter-irritation by blisters, seton, etc., may sometimes become necessary, although I have no faith in them.

A patient who has once had an attack of amaurosis, should wear all his lifetime woolen socks, whether it be summer or winter, for fear of a relapse, which is always more severe than the first attack.

Conjunctivitis.—Simple, or catarrhal inflammation of the conjunctiva, is a very common disease in hot countries. The most frequent cause of it is the immense heat of the day being followed by chilly and dewy nights, and an imprudent exposure to the latter.

In the acute state it hardly ever requires anything but a brisk emetic or purge; and for external application, first emollients, then an astringent. My favorite in such cases is:

℞.—Lapidis Divinæ, grs. vj.—xij.
M. Aquæ fontan., ℥ij.

As a general rule, I never trust the patient with eye-waters; they are sure always to apply it to the wrong place, and one application by the physician is as good, if not better, than half a dozen by unskilled hands.

The chronic form of conjunctivitis is exceedingly troublesome; you may scarify and cauterize as much as you please, the patient has but to walk a few squares in the sun to find himself as bad again as before.

The cause of this is, in the first place, the scrofulous habit of the people; and secondly, the peculiar granular degeneration of the membrane.

It is entirely useless to apply any other than soothing remedies, until, by means of tincture of bark, with sublimate, iodide of iron, etc., the constitution of the patient has been amended.

As soon as this has taken place, the granulations become whitish and flabby, and should then be excised with a pair of scissors.

For this operation, which habit soon teaches to perform with nicety, I employ those scissors in use for enlarging the cut in the cornea in the operation for extracting a cataract; and of all makers, give the preference to Charrière.

It takes several sittings before the lids can be effectually cleaned of their incumbrances, and it requires a good deal of patience, both from the physician and patient, to do it well; but in no other disease of the eye is the result so striking as in this, and therefore so well calculated to pay for the trouble it causes.

Purulent ophthalmia of new-born children, whether it be caused by vaginal discharges or by too early exposure to strong lights, is always apt to be very troublesome. It happens but seldom that the physician is called in time to save the eye, the destructive process having already produced more or less opacity of the cornea, or perhaps loss of the entire eye.

If any part of the cornea is still left transparent, deep scarifications into the swollen parts, leeches, blisters, and cauterization with the

solid nitrate of silver, with calomel and opium at bedtime, may still be tried.

The same course of treatment must be pursued in cases of gonorrhœal ophthalmia in adults.

As a general rule, all applications to the eye in natives should be made in double or triple the ordinary strength; for before they ever think of consulting a physician, they have tried the entire list of home remedies, such as brandy, common salt, vinegar, lime-juice, urine, etc.

Goitre.—This is a very common disease in pretty much all hot countries. As it attacks the females more frequently than the males, and the former are always more or less anxious about their appearance, a newly-arrived physician is apt to be frequently consulted on this subject.

In old cases, nothing is left but operation, which, besides being very doubtful, is kept in horror by the natives; in fact, whenever a patient troubles me too much about some disease, I only have to commence talking about cutting, and—off they are.

In slight cases, the gland may be painted over twice daily with a solution of iodine, four ounces of which should contain one ounce each of iodine and iodide of potassium, until the cuticle has been removed twelve or fifteen times.

The syrup, or some other form of iodide of iron, may be given internally. But internal medicines should not be continued too long, and should always be alternated with strong purges, lest the same might happen as to a patient of mine in Guatemala.

The iodine in this case acted so well that the tumor disappeared entirely, although the mammary glands were at the same time also entirely absorbed.

At the end of about a year, the goitre returned as bad as ever, but the breasts not; an example of the fact, that sometimes a cure is worse than the disease itself.

Gonorrhœa.—It should be borne in mind, that in all cold countries a gonorrhœa is very easily cured, while chancres are mostly very obstinate; but in tropical countries it is exactly the contrary, hence the necessity to stop a gonorrhœa as soon as possible. The peculiar modification which the body undergoes in hot climates, and the small amount of plastic material in the blood, seldom permit a gonorrhœa to commence with truly inflammatory symptoms, and only in exceptional cases is there so much constitutional irritation as to demand the administration of a truly antiphlogistic remedy. In such cases I usually prescribe:

℞.—Magnes. sulphat., ℥ij.
Ant. tart. et potass., grs. ij.
Aquæ fontan., ℥viij. M.
S.—One table-spoonful every two hours.

Under the effect of this the bowels are effectually cleaned, and any trace of irritative fever which may have been present disappears. The most prominent symptom now is the scalding on passing the urine, and against this I prescribe:

℞.—Pulv. gum. acaciæ,
Sacchar. albi, ää., ℥j.
Tinct. camphoræ, gtt. xxx.
Aquæ lauro-cerasi, ℥ij.
Aquæ fontan., ℥vij.
Syrup. simpl., ℥j.
M.—One table-spoonful every hour.

This prescription has to be continued for three or four days, and as soon as the scalding has nearly ceased, the proper time has arrived for using injections.

I generally commence with the sulphate of zinc, in the following dose:

℞.—Sulphatis Zinci, ℥j.
Aquæ Fontan., ℥xij.
M. Tinct. Opii, gtt. xxx.
S.—3–6 injections daily.

If the above quantity has been used, and the running still continues, double the amount of sulphate of zinc may be given, in the same quantity of water.

But among a people so thoroughly tainted with syphilis, almost every case of gonorrhœa has something of a specific nature. If, then, the second injection does not produce the desired effect, I take it for granted that the disease is syphilitic in its nature, and prescribe the following injection:

℞.—Hydrargyri Bi-chlorati,
Ammon. Muriat., ää, grs. vj.
M. Aquæ Fontan., ℥vj.
S.—1–3 injections daily.

The number of injections must be regulated according to the amount of pain they produce; still, no more than three.

It may become necessary to increase the sublimate to 1½ or 2 grains per ounce; still, this is only required in a few exceptional cases, and should always be done with great caution.

I have never found a case of gonorrhœa to resist these remedies; although, in old and much-debilitated subjects, there sometimes remains

a very slight gleety discharge, which, however, soon gives way under the use of—

℞.—Balsam. Copaibæ,
Tinct. Ferri Acetici, ää., ℥j.
M.—3 times daily, 30 drops.

This is the only form under which I employ the balsam copaibæ.

As soon as I commence with injections, I order my patients to take a cold bath every morning, and to wash the genitals with cold water several times daily.

There is nothing which retards the healing process so much as to starve the patient on slops, bread soups, etc.

As soon as the urine is voided with but little scalding, I allow my patients to eat moderately of whatever they like; even, if they are accustomed to it, they may take some light French wine, with water, at breakfast and dinner.

It hardly ever takes me longer than ten days to cure a case of gonorrhœa.

I have once made the trial of the heroic, or abortive treatment, as recommended by Ricord. As a consequence, my patient suffered fifteen days from a severe attack of cystitis; and one was very near giving me and the world generally the slip.

Gonorrhœa in the female should be treated in the same manner; keeping, however, in mind, that the mucous membrane of the vagina is much less sensitive than that of the urethra; consequently, injections of triple strength may be used with impunity.

(TO BE CONTINUED.)

On Varicose Veins and Ulcers, and their Treatment by the Tincture of the Chloride of Iron. By BERNARD KELLY, M.D., Physician to the New York Dispensary.

There are few diseases, perhaps, with which the physician or surgeon has to deal, which prove so intractable or rebellious to treatment, as varicose veins, and the indolent ulcers which so frequently attend them. So true is this remark, and so comparatively insignificant has been the fruit of their labors, that we find the most experienced and judicious practitioners abstain entirely from all medical and surgical interference, and consign their patients to absolute repose, as the only reliable alternative left them in their emergency. Others, with a little more faith, but generally with less success, resort to band-

aging, elastic stockings, adhesive straps, cauterization, the ligature, and finally, the injection of the perchloride of iron into the cavity of the diseased veins, with the view of coagulating the blood, and in this manner to obliterate the vessels, and force the circulating fluid to seek more *upright* and accommodating channels.

Now, let us for a moment dwell upon the respective merits of these various modes of treatment. Of all, perhaps, rest in the *horizontal* position is the most judicious and satisfactory. But, unfortunately, there are too many serious obstacles to its general application. In the first place, all patients cannot conveniently keep their beds or lounges, without material detriment to themselves, or compromising, in too many instances, the urgent support of helpless families; and, secondly, the benefit derived is in no wise commensurate with the valuable time sacrificed; for the cure, if we may so term it, is but temporary, a relapse taking place almost as soon as he quits the recumbent position. The cauterization, ligature, and injection of varicose veins by the perchloride of iron, are attended by many inconveniences, and not rarely by extreme danger to the patient. All that is gained, at best, is obliteration of the vessel operated on; but the neighboring veins, sustaining the *onus* of returning their own complement of blood, and that thrown upon them by the impervious condition of their *congener*, literally break down beneath the excessive task, speedily assume the varicose state, and thus virtually deprive the operations of all practical value. The danger to be apprehended is twofold—phlebitis and the introduction of air into the veins; either of which accidents may terminate fatally. Compression by flannel bandages, adhesive straps, and the elastic stocking are at least but palliative, and must be constantly worn by the patient, in order to guarantee any result bordering on success.

The ablation of the diseased vein, formerly so much in vogue, is no longer thought of, and is justly consigned to oblivion. The iodide of potassium has been recommended as a never-failing remedy in the treatment of varicose ulcers. No doubt it is often serviceable in combating the low grade of inflammation which frequently accompanies them; but to assert that it ultimately and effectually heals the sores, is, we think, going deeper in the chapter than actual experience would warrant. As far as we have seen its efficacy in this respect, (and our means of observation have been sufficiently ample, being engaged as physician in one of the largest and best frequented dispensaries in the country,) it has, to say the least, proved a complete failure. With respect to its power over ulcers of a syphilitic nature we fully accord.

And, indeed, if we take into consideration the pathological element of varicose veins, and the ulcers resulting therefrom, we shall instantly see the utter futility, not to say the absurdity, of the so-called alterative, or iodide of potassium treatment.

Varicosity very commonly supervenes in debilitated constitutions, and in subjects who are necessitated to maintain the standing position, daily, for many consecutive hours; hence its great frequency in blacksmiths, and others following kindred employments. The vessels, not receiving the requisite support from the alternate contraction and relaxation of the muscles, as they generally do in those who follow active, bustling avocations, become distended by the slowly-circulating blood, gradually acquire hypertrophy of their coats, and finally assume a zigzag disposition, as the only definitive means to enable them to carry on the circulation. Now, all this is truly provisional on the part of nature. The thickening of the coats of the vessels sustains for a time the burden of the semi-stagnant blood; the tortuous arrangement furnishes a rude substitute for the valvules, by which the venous circulation is expedited. Many physicians, inspecting merely the thickened coats of the vessels, cannot comprehend how the disease can be one of debility; for, say they, hypertrophy indicates increase of nutrition, and where this condition obtains there is always evidence of vitality and force. Now all this may be very logical, but it cannot stand for an instant the test of stubborn facts. We all know that when an organ, or any portion of the economy, has increased duty to perform, it undergoes hypertrophy to enable it to discharge the laborious function imposed upon it. This is precisely the case with the veins. Another proof of the truth of our theory is furnished by the fact, that it is almost universally the vessels of the most depending portion of the body which become varicose. First, in point of frequency, are the veins of the lower extremities, the internal and external saphena, and their tributary branches; next, the veins of the pelvis, comprising the hæmorrhoidal, vaginal, vesical, uterine, spermatic, etc. The superficial veins of the abdomen, thorax, and upper extremities, are very rarely the seat of varix, and then almost universally results from some serious obstruction to the circulation, whether centered in the liver or the heart. The fact of varicosity sometimes supervening upon pressure from morbid tumors, or a gravid uterus, is no argument at all against the position we maintain; for we see, daily, hundreds of cases where similar obstruction exists, and yet the vessels preserve their integrity, allowing merely the filtration of the serous portion of the blood across their coats into the surrounding cellular tissue. Indeed,

on the contrary, it seems to lend additional force to it; for as, in one class, the veins become dilated, tortuous, diseased, owing to their inherent weakness, and incapacity of supporting the weight thrown upon them; so, in the other, by their natural elasticity and strength, they struggle successfully against this *incubus*, and remain perfectly normal and intact amid the same unfavorable circumstances.

The pathological nature of a disease being once established, a rational treatment is very generally predicated. It occasionally happens, however, that we are entirely unable to render any permanent, or even temporary, benefit, in cases the morbid characters of which are most clearly manifested to us. This exception, fortunately, finds no application in the present instance. Here we have an affection showing itself very frequently in lymphatic and feeble constitutions; in persons disproportionably tall and attenuated, in whom it may be truly, as well as literally, said, the veins have *uphill work* to perform; or in subjects otherwise athletic and well formed, but compelled by circumstances to follow pursuits in which the standing position is constant and inevitable; and finally, in pregnant women, and individuals laboring under various species of enlarged tumors and heart disease; but in all we see that the equilibrium, which should necessarily exist between the elasticity of the venous coats on the one side, and the pressure of the circulation on the other, is materially impaired. Had the veins possessed the strength and elastic endurance of India-rubber tubes, so as to counterbalance any undue pressure that might be imposed upon them, we should scarcely ever encounter a case of varix. We should, then, endeavor to remove, as far as possible, all obstruction to the venous circulation, and administer such remedies internally, which, if they do not supply, to the full extent, the *desideratum* of caoutchouc tubes, will at least so fortify the vascular system throughout, as to render certain forms of the malady, of which we treat, comparatively rare and innocuous.

The treatment which we have found most satisfactory, the one, indeed, which has surpassed our most sanguine expectations, consists almost entirely in the internal exhibition of iron. We scarcely ever condemn our patients to absolute repose in the recumbent position; neither do we employ bandages or adhesive straps; much less do we think of the cauterization, ligature, and injection of the diseased vessels by the perchloride of iron. Thirty or forty drops of the *Tr. Ferri Muriat.* are given three or four times a day in a little water, or better still, in a solution of the sulphate of quinine. Both these substances form an excellent tonic mixture, and are no wise chemically incompatible. If

the bowels show a tendency to constipation, one or two pills of aloes and iron are taken at bedtime, which always secure one or two passages in the twenty-four hours. This *soluble condition* of the alimentary canal is of great importance, and should never be lost sight of in the therapeutic management of varicose veins and ulcers. A fæculent, loaded state of the intestines predisposes, in many instances, to the production of varix, and never fails to aggravate it when it exists. One has only to witness the inexpressible relief and comfort afforded to such patients from free purgation to be fully convinced of its great utility. We should not by any means, however, recommend it as an infallible remedy in the treatment of varices; we merely resort to it as an auxiliary means, frequently not to be dispensed with. If the large venous trunks, only, are dilated and tortuous; if a *phlebectasis*, as Alibert has called it, simply exist, the capillaries and surrounding tissues not being involved as yet in the disease, the cold *douche* perseveringly employed, followed by dry frictions, renders the most signal services, and seems to lend additional efficacy to the chalybeate medication. No one will understand us to imply that varicose veins shall ever regain their original symmetry by the treatment proposed; no, this is impossible; but the disease, the diathesis, shall be so modified, that the occurrence of ulcers, œdema, and hæmorrhages shall be postponed to a very remote period, if not indefinitely. Under its influence, we see persons who have been afflicted for a long time with excruciating pains in the limbs, who could scarcely walk the shortest distance without fatigue, soon become relieved of all inconvenience and suffering, and even perform long journeys, on foot, without evincing any symptoms of debility or exhaustion. The vessels, in a word, become braced up by the stimulating properties of the drug; they acquire tone and elasticity; the capillary circulation is carried on energetically; and thus all tendency to passive congestion and circumscribed ulcerative action is prevented. If the patient labor, at the same time, under chronic disease of the heart with regurgitation, for example, the treatment, for very obvious reasons, is equally appropriate and efficacious. If the small venous twigs and capillaries show signs of inflammation, by pain, tumefaction, and redness of the parts, it will be necessary to rest the limb for a few days, administer saline cathartics, and apply acetate of lead lotions freely. After the inflammatory action has subsided, which it does very promptly by the means specified, the tincture of iron must be immediately given in the doses already indicated, and recourse had to the cold *douche* and gentle frictions. The patient, at this stage, may safely take short walks, which, contrary to the old

notions of treatment, expedite rather than retard the healing processes. Sometimes the local irritation manifests itself in the form of intolerable itching, accompanied by an eczematous eruption, which often drives the luckless sufferer to the very verge of desperation. We have frequently known persons in this state to apply red-hot irons so close to the parts as to produce actual vesication of them. The internal use of the chloride of iron seldom fails, in the majority of cases, to allay this uncomfortable sensation, no doubt by its stimulating action upon the languid, laboring capillaries. When it fails, as it occasionally does, to give sufficiently prompt relief, we recommend the patient to rub the part with a saturated tincture of capsicum, or in lieu of this, with the spirits of camphor. The comfort afforded by such applications can only be fully realized and appreciated by the unhappy victim himself.

But it is in the therapeutic management of varicose ulcers that the transcendent powers of iron stand forth conspicuously. If its action be only conservative in the case of the veins, (a very important rôle, it must be acknowledged,) in the latter it is highly recuperative. When the system has fully come under its influence; when the process of hæmatosis is performed vigorously, we see old, ill-conditioned ulcers surrounded by broad, livid margins, which seem to offer an impregnable barrier, as it were, to all efficacious assaults from medicine, soon become entirely changed in their character. Instead of discharging large quantities of a fœtid, gangrenous ichor, as they generally do before a trial of the treatment proposed, they now secrete a moderate amount of creamy, laudable pus. Active, healthy granulations spring up from the bottom and the previously elevated and indurated edges of the sores. The dusky, purple patches which fringe them are transformed into a bright vermilion hue, and speedily attain the color of the sound tissues. We have no faith, as already asserted, in topical applications of any kind, and consequently seldom employ them. The parts are simply kept clean with a little soap and water. It often happens, however, that patients have wonderful confidence in salves and washes, and never fail to importune the physician to prescribe these indispensable panaceas. Now, if *placebos* must be given, *nolens volens*, it will be the duty of the practitioner to select those which from their nature, if incapable of effecting any positive good, will at least do no material injury. We have found by experience that certain conditions of the ulcers and contiguous structures are sensibly benefited by certain substances applied locally. If the sore be unusually flabby and indolent, and disposed to bleed, the tincture of myrrh

or Friar's balsam may be very advantageously sprinkled on three or four times a day. Either lotion gives at first considerable pain, but this soon subsides, and the patient becomes easily reconciled to it from the apparent benefit derived, as shown by the induced healthy appearance, and speedy cicatrization of the ulcer. The neighboring tissues are sometimes covered by a dry, scaly eruption; sometimes bedewed by a serous exhalation. In the former case, any of the officinal stimulating ointments may be employed. We generally prescribe, when solicited by the patient, (for all these accidents will eventually and inevitably yield to the internal use of iron,) the diluted citrine, or the white precipitate. In the latter, a salve composed of simple cerate and finely levigated prepared chalk, or calcined magnesia, will fulfill all the indications. After the ulcers have been perfectly healed, and the limbs restored to their pristine vigor, it will be proper to persevere in the steady use of the chloride for at least a month or two. These patients, like chlorotic or anæmic ones, are excessively prone to early relapses, and consequently should be treated long after all the symptoms of their malady have completely disappeared. By such precaution the vascular system in general, and the venous in particular, is so strengthened as to effectually resist all tendency to regression.

Case of Pott's Disease, with Remarks. By H. G. DAVIS, M.D., New York.

In May, 1856, was called to see a young man affected with Pott's disease of the middle dorsal vertebra. A year previously he had received an injury upon the lower portion of the spine, giving him some local trouble at the time. Six months after the injury a slight prominence of the dorsal vertebræ was perceived, attended with some pain and sensation of weakness in the superior portion of the trunk. When I first saw him, he had more the appearance of a person with very round shoulders, than of one with angular distortion of the spine. His limbs were so far paralyzed that he was easily thrown down by slight irregularities when walking. His bowels were costive, and his bladder was evacuated with some difficulty; otherwise his general health was good.

I advised the application of my apparatus for Pott's disease, and gave encouragement that the paralysis would be relieved by straightening the spine, which it is a part of the design of this apparatus to effect. The apparatus was applied, and worn some weeks, but much

to my disappointment without any relief to the paralysis, which, on the contrary, regularly increased until it became complete, both of motion and sensation, the actions of the bowels and bladder taking place unconsciously. As soon as it became evident that there was compression of the spinal cord, and that the straightening of the spine would not relieve it, a change was made in the treatment pursued. My views were overruled by the gentlemen in consultation. It was decided that it would be dangerous to the integrity of the cord for the compression to continue any length of time, therefore an effort must be made to produce absorption. For this purpose, iodine was applied externally by the side of the spinous processes, and calomel exhibited in small doses, repeated until the gums were affected, and then continued in sufficient quantities to maintain this amount of mercurial action. This was followed for three weeks, the patient being salivated for a greater portion of that time. At the end of this period there was no relief to the paralysis; the patient had become greatly emaciated; appetite gone; the vital energies very much reduced, so much so as to prevent a longer continuance of the calomel. It is but justice to myself to say, that at the consultation, in opposing this treatment, I not only stated that no good result could be anticipated from it, but positive injury rather, to the general health, and a diminution of the chances of life.

At this time all hopes of any good from this treatment being abandoned by the consulting physicians, the case was given up to me. The paralysis had then reached as high as the epigastric region, although not entire here. There was a sense of constriction about the chest, somewhat impeding respiration. This sensation was at times so severe as to excite feelings of anxiety that it might fix the muscles of respiration, and destroy life, as in tetanus. The muscles of the abdomen were very tense, and some positions of the body would give rise to tonic spasms of those muscles, and apparently of the diaphragm, aggravating the difficulty of respiration to such a degree, that an immediate change of position was necessary. The treatment was now changed to invigorating remedies, the object being to sustain the system, and put it in the best possible condition to withstand the disease and the debilitating effects of a long confinement.

A pill containing ext. strychn. nucis. vom., gr. $\frac{3}{4}$, argent. nitrat. cryst., gr. $\frac{1}{4}$, was ordered, four to be taken in the twenty-four hours. The system responded in a remarkable manner to this medication; the appetite became equal to that of a young man with robust health and active out-door exercise; the food was well assimilated, as was evi-

denced by the increase of flesh. This healthy condition of the digestive system continued through his whole confinement, with the exception of an attack of typhus fever, which ran a period of seven days.

After some weeks the bowels became sensitive to the effects of the nitrate of silver, and the tr. nucis. vom. was substituted for it, and afterwards the tr. rhus. venenata was added to the tr. nucis. vom.

It may be thought by some that my object was to overcome the paralysis by the remedies used. Such, however, was not my design. The tincture and the extract of the strychnos nux vomica contain but a small proportion of the alkaloid strychnine, while there is in addition a bitter tonic that affects in a remarkable degree the nutritive system, increasing the appetite and powers of digestion.

During the confinement of this patient, bed-sores appeared upon both hips and upon the back. In the fall a swelling was perceived over the lower lumbar vertebræ, which continued to enlarge, and finally discharged at the bed-sore below. The sinus appeared to run in the direction of the lumbar vertebræ; several pieces of dead bone were discharged from it. He now began to recover very gradually both motion and sensation. The muscles affected by the paralysis continued subject to spasms, so much so as to slide him out of his chair, if not held by his hands. Apparatus was again applied to keep his figure good, and a system of training adopted to enable him to regain the use of his muscles. His figure is at the present time very good, he can walk long distances, but the left limb has not fully recovered from the paralysis of motion; there is reason to expect that this will eventually be restored.

The craving for animal food, so general with this class of patients, was present in a marked degree.

He would drink the clear fat that dripped from beef in roasting. The amount of fat animal food he would consume was very large.

This case is interesting from the extent of the disease, its effect upon the spinal cord in suspending its functions, and the length of time it remained useless, the tenacity with which the cord resisted the diseased action contiguous to it, and lastly, the encouragement it gives us to sustain the recuperative energies of the system by promoting digestion and assimilation. Our chief dependence in such cases must be upon food, and that well assimilated; wine stimulants, like tonic spirits, &c., may answer for the crisis of a fever, or for a temporary period, but when the disease is to run on for months, it is only by the assimilation of food that the patient can hold out to the end. It is utterly fallacious to expect the ulcerative process established in Pott's disease

to be stayed in its progress, unless the recuperative energies of the system are sufficient to counteract it, by establishing the opposite process, viz., the renewal of the parts, or so much of them as the condition of the parts will admit. There are no specifics in such diseases; Nature performs her own work, and it is only by removing all obstacles, and providing her with the raw material, that we best aid her in the operation.

The state of the system in this disease is not inaptly represented in the vegetable kingdom by a tree that has received but limited support. It puts forth leaves every year, and may make some wood, but when such a tree receives an injury, destroying a portion of its cuticle, the laws of nature, that act when those governing vital actions lose their power, will then gain the ascendency, or in other words, decay will commence.

The surest mode of preventing this process, therefore, would be to invigorate the tree, and remove the causes that might interfere with the restoration of the lost parts.

The treatment of Pott's disease and morbus coxarius should be founded upon this principle: put the system in the best possible state, and remove all obstacles to the perfect restoration of the lost parts. In Pott's disease we throw the weight, by means of mechanical support, upon the transverse processes of the vertebræ, and keep their bodies at their natural distances from each other, thus removing all pressure, and allowing the whole space affected by the disease to be filled up with new material, thereby preventing the deformity which would otherwise take place. In morbus coxarius we separate the diseased head of the femur from the acetabulum, thus leaving the parts in a condition to recover so far as pressure might have interfered. By this means we also get, in both instances, passive motion without friction.

Glycerine, and its Applications to Surgery and Medicine. By M. Demarquay.

(This memoir is the result of five years' close study. We find it of sufficient value to transfer a condensed translation to our columns. It contains material very valuable, considered either from a scientific or practical point of view.)

Glycerine was discovered in 1779, by Scheele, in the mother-waters, produced in the preparation of simple ointment. Chevreul gave it its present name, and showed that it was a constituent of fatty bodies, in

which it played the part of a base, being united to stearic, margaric, and oleic acids, and that every saponification had for its object the destruction of this combination, the alkaline metallic oxides employed taking the place of the glycerine, while the latter was set free, and appeared in the mother-waters.

In 1845 and '46, Yearsley, Wakely, and Turnbull, of England, employed it, with some success, in diseases of the auditory apparatus. Startin first used it in skin affections, Taylor in xerophthalmia, and Scott Alison in the treatment of certain diseases of the larynx and trachea. In 1851, a French physician, M. Dallas, living at Odessa, used it in the treatment of gangrenous and other wounds. In 1854, Cap, in a memoir on glycerine to the Academy of Medicine, narrated certain cases of the successful use of glycerine, drawn from the practice of Trousseau, Cazenave, Bazin, and Aran. In October, 1855, Demarquay was employed at the Hospital St. Louis, where a gangrenous epidemic was to be combated. He had employed, unsuccessfully, lemon-juice, nitric acid, and sesquioxide of iron, and finally had recourse to glycerine. The success exceeded all expectation. Glycerine was applied to all the wounds under his charge, and the happiest results were obtained. At the end of the month they were communicated, through letters addressed to the French Academies, to the world. Thus glycerine made its entrée into therapeutics.

I. *Properties of Commercial Glycerine.*—Great difference will be found in commercial glycerine, in consequence of impurities, or even difference in composition. One specimen is colorless, another of an amber shade; or another still, highly colored. One is almost inodorous—another is possessed of a very disagreeable odor of rancid butter. As to density, the variations are fully as great—the areometer showing a range from 25° to 30°. And, what is of still more importance, commercial glycerine presents difference of reaction with chemical tests. Most frequently it is acid, coloring litmus paper strongly red; sometimes alkaline, making syrup of violets green; and very rare is it met with nearly neutral. In general, these contradictory properties arise from the presence of foreign substances employed in the saponification, and these are, ordinarily, fat-acids in union with lime, sulphuric acid, and metallic salts. Their presence makes glycerine sometimes irritating and painful in its action.

Glycerine, when perfectly pure, may at times excite pain by its application to wounds or highly inflamed parts. The explanation is thus made: Such glycerine is too highly concentrated, and has, hence, great affinity for water, causing its removal from surfaces to which the arti-

cle is applied, and determining pain. This fact shows the necessity of not commencing with the employment of a very concentrated article, where the surface is very sensitive. Demarquay prefers that the glycerine should be 28°, absolutely neutral, and free from impurities.

Pure, officinal (French Pharmacopœia) glycerine is a colorless liquid, inodorous even after it has been rubbed on the hands, of an oleaginous consistence, and of a saccharine taste. It marks 28° of the areometer, and, at this point of concentration, contains about 12 per cent. of water. When anhydrous, it marks 31° of the areometer. It is absolutely neutral—free from action on litmus paper or syrup of violets. Any specimen, whether acid or alkaline, should be rejected. It is very hygrometric. Exposed to the air, it will absorb half its weight of water—hence the necessity for its preservation in well-stoppered bottles.

The presence of volatile fat-acids is recognizable in impure glycerine by the odor of rancid butter which they give it. If we add concentrated sulphuric acid, there will be produced immediately the odor of butyric ether. There should be no precipitate in glycerine with the use of oxalate of ammonia; if a precipitate forms under such circumstances, it indicates the presence of lime. A volume of glycerine should dissolve completely in a volume of alcohol acidulated with one per cent. of sulphuric acid, without giving rise to a deposit even after 12 hours. If a deposit is formed, it will be in proportion to the lime present.

To detect metallic bases, resort is had to sulphydrate of ammonia, which has no effect on pure glycerine, but which will throw down precipitates where metallic oxides are present. To detect sulphuric acid and the sulphates, the soluble salts of barium are employed.

Sometimes a syrup of sugar or honey is added by way of adulteration, since as much as 10 per cent. may be employed. This can be recognized by pouring in the liquid a drop or two of sulphuric acid; there will be formed a white granular deposit, which is never formed under similar circumstances in pure glycerine. When glucose has been used in the falsification, the article should be boiled in a tube with a fragment of caustic potassa, when a dark coloration will be immediately produced.

II. *Modes of Preparation.*—The glycerine resulting from the manufacture of soaps and stearic acid candles is very impure, as the fats employed are generally of the worst quality; and furthermore, it contains a notable quantity of lime.

Several methods have been proposed, by way of purification. Mons.

Cap commences his method by concentrating, through evaporation, a quantity of the mother liquid from soap factories or stearic acid factories, then determining the proportion of lime they contain by means of oxalic acid. He saturates the lime with a sufficient quantity of sulphuric acid. The precipitated sulphate of lime is separated on decanting the liquid, which is then brought to the boiling point, constant agitation being employed; the fat-acids volatilize, and the liquid gradually loses its color and unpleasant odor. During the concentration the liquid is passed several times through linen cloths, in order to separate new quantities of sulphate of lime, and the excess of acid is saturated by carbonate of lime. The evaporation is accompanied always with agitation of the mass, and until the warm liquid gives 28° of the areometer. On cooling, some sulphate of lime is deposited, and finally the liquid is decolorized, when cold, by using animal black.

The objection to this glycerine is, that it is rarely neutral, and it almost always retains either some lime or an excess of sulphuric acid.

Mons. Gustin operates on very fresh fatty bodies, which he saponifies with pure litharge in the presence of distilled water. The mother-waters, containing glycerine in solution, are filtered, and introduced into a Wolfe's apparatus, through which a current of sulphureted hydrogen is passed until all the lead is precipitated. The glycerine is, however, not perfectly freed from the base used in the saponification.

Wilson, in the manufacture of Price's candles, treats fatty bodies with steam heated up to 250°, and they are thus split up. It is only necessary to collect the glycerine, concentrate and decolorize. The product thus obtained is very superior to those just described, for no foreign substance is employed to produce saponification. This is, then, the best glycerine for internal use. When this is employed for medicinal purposes, it is always well to diminish its density by the addition of water.

III. *Glyceroles.*—By this name medicaments are called in Pharmacy, into the composition of which glycerine enters. In some of them, glycerine plays the part simply of excipient, in others that of excitant, and that of adjuvant, its action making that of the medicament more energetic, with which it is associated. Glyceroles are employed largely in the iatraleptic practice. Glycerine, occupying a middle position between water and oil, dissolves a host of medicaments, whose absorption it renders easy—a valuable property when the alimentary canal refuses a medicament, which must then be introduced through the skin. In addition to this advantage, it is soluble in water and

alcohol, and hence it can be removed readily from surfaces to which it is applied, while it neither becomes rancid, nor produces any hurtful action *on* the skin—effects which fatty bodies sometimes produce in cutaneous affections.

The number of glyceroles is necessarily large, since glycerine dissolves some metalloids, a host of salts, extracts, alkaloidal salts, and some of the alkaloids, tannin, the tannates. Its solvent property, according to Cap and Garot, is nearly equal to that of diluted alcohol.

IV. *Therapeutics.*—Glycerine unites a softening and penetrating action on the tissues. These properties are incontestable, and to a certain extent special, as we shall show. When applied to the skin, covered with its epidermis, it produces no other effect than a very persistent sensation of freshness. This arises from the affinity which glycerine has for water. It condenses, in fact, the aqueous vapor contained in the atmosphere, and instead of drying, it becomes more liquid, and preserves for a long time the surface to which it has been applied, moist—a valuable property, which facilitates the absorption of such remedies as may be administered by the skin.

When the derm is denuded, glycerine, instead of producing the sensation of freshness, develops, on the other hand, a slight burning, which radiates from the point of application, although it produces no unpleasant effect if the article is pure. This burning effect is explained by the affinity of glycerine for water, which is extracted at the expense of the liquids of the economy.

Applied to organic tissues, it penetrates them thoroughly, so as to make them transparent. It acts thus on the fibres of muscular and cellular tissues, and upon the amorphous substances of fleshy tumors. It thus brings out clearly the structure of certain tissues; and Robin availed himself of this action on the anatomical elements of fresh bone in his study of *osteoplasts*

But it has an opposite action on other elements of our tissues, attacking, and sometimes dissolving them. It contracts blood-globules without deforming them, renders them thinner, gradually destroys their color, and finally dissolves them, if the contact has been sufficiently prolonged. It contracts pus-globules at first, renders them more resisting, and reduces their diameter about one-half; gradually decolorizes, and reduces them to a delicate, transparent outline. It modifies, also, the physical and other characters of epithelial cellules.

It has a preservative action on organic matters. Several experiments, made in conjunction with Luton, have established this fact, which was first communicated to the Société de Biologie, January,

1856. Demarquay gives the following as his conclusions on this action of glycerine:

1. Organic substances plunged into glycerine can be preserved for an indefinite length of time, provided the immersion has been sufficiently prolonged. He has had in his possession mutton chops for at least three years, that had been soaked in glycerine, and they were as fresh as when taken from the butcher's stall. The form, color, volume, and original suppleness are preserved, and no odor is exhaled.

2. When injected into the tissues, it only preserves them for a short time from putrefaction. Its preservative power is of greater duration in winter, when a subject, injected with glycerine, can be preserved from six weeks to two months. Great advantage would result from the use of glycerine in the solutions employed in injecting subjects. These solutions most always act injuriously on the instruments, form upon the cut surfaces efflorescences, and change the physical characters of the tissues. Such effects are not produced by glycerine.

Let us now notice the action of glycerine when brought into contact with our tissues, or notice its effects in pathological conditions.

V. *Sores, Wounds, Hospital Gangrene, &c.*—Demarquay first employed glycerine in surgery, and, therefore, this portion of his report is of special interest to the young surgeon. Nothing is more simple than glycerine dressing. The linen should be soaked for some time in glycerine, so that it is thoroughly saturated. It is removed at the time of application, drained, and then spread over the wound, which it should cover entirely. If the glycerine be pure, the patient will experience no painful sensation at the contact; a slight burning will be felt, less disagreeable, however, than the cold produced by contact of cerate. Over the glycerine dressing the ordinary bandage can be employed. When the sore is deep and irregular, the dressing should be commenced by filling up the cavities with pledgets of charpie soaked in glycerine, and then covering all with the linen cloth soaked in glycerine. The principle is to have the *whole* bloody surface covered with the medicament. All other things being equal, the glycerine dressing need not be changed as often as the ordinary dressing, and can be retained for a long time. It can be readily removed without dragging along with it, as is the case with the ordinary dressings, some of the pellicle of the cicatrix. During treatment with this dressing, the sore remains clean, and, however long the time before cicatrization, it does not require washing. Hence there is economy of the surgeon's time, and the disagreeable effects of wet bed-clothing are obviated, as well as the atony which constant washing produces. It prevents fleshy granulations

developing too rapidly, and thus does away with the use of caustic to suppress them. It moderates suppuration. Sores thus dressed present a very fine appearance, and are rose-red, indicating a proper state of excitement for reparation. Moreover, it is exceedingly rare to find, in the curative course of such sores, any accidents, such as erysipelas, purulent infection, hospital gangrenes, &c., which often occur with the cerate dressing.

The effect of glycerine dressing on hospital gangrene has been disputed, and it was doubted whether the cases cited by Demarquay were cases of that disease. But he says, it is difficult to say what the disease is, if not hospital gangrene, when the suppurating surface, becoming painful, is covered with a grayish, pultaceous mass, extending superficially and in depth, the suppuration changing into an ichorous and very fœtid pus; fever set up, accompanied with general distressing phenomena. In such cases, scarcely has the dressing been applied when the patient experiences comfort, and the pain disappears. Not only does the glycerine prevent the extension of the putrefaction, but it determines the elimination of the mortified parts, cleanses the suppurating surface, which assumes a rosy color, furnishes a true pus, and loses its unpleasant odor. The rapidity with which it produces all these changes is remarkable.

For four years Demarquay has dressed, in hospital and private practice, all cases of *anthrax* with glycerine. After having made suitable incisions, he places in each of these some charpie soaked in glycerine, covering the whole with a poultice moistened with this substance. Other surgeons, Pertus, Chalut, and Bertet, (of Cercoux,) have followed this plan with perfect success.

On the battle-field glycerine dressings will prove specially useful, as they need to be renewed very rarely, and diminish suppuration. Besides, warlike projectiles produce contused wounds, with mortification of their edges, ordinarily very complicated, involving amputations, requiring much time to cicatrize, and suppurating abundantly. Under such circumstances, glycerine recommends itself by its prophylactic and curative powers, by its anti-putrefactive action, and by its property of moderating suppuration. Besides, it is easy to transport, and can be preserved indefinitely, not being liable to rancidity, as is the case with cerate.

Deep Abscesses, Fistulous Passages, &c.—Glycerine is employed to meet the following indications, sometimes singly present, and often collectively. It prevents superabundance of suppuration, cleanses secreting surfaces, modifies the bad qualities of pus, prevents the stag-

nation of liquids, and excites the pyogenic membrane, so as to hasten the process of reparation. Frequently, concurrently with injections of glycerine, Demarquay employs compression, when the parts and the nature of the lesion admit of it. The simultaneous employment of these two means has produced very good results in sub-mammary abscess and deep abscesses of the axilla, with purulent suffusions under the pectoral muscles. After amputations and disarticulations, purulent collections are often found in the stump. These may be well treated with glycerine injections. When an abscess is connected with an injury of the bone, iodine should be combined with the glycerine. The latter being endowed with great penetrating properties, and being an excellent solvent of iodine, it carries this medicament with it through all the diseased tissues, molecule by molecule. Such injections may also be employed in suppurating syphilitic buboes.

Burns.—In a general way, glycerine acts favorably in the symptoms which follow burns, such as the pain, inflammatory reaction presiding over the elimination of the eschar, and the abundance of suppuration, which, after the removal of the mortified parts, is so often a cause of exhaustion and death. The pain is quieted by the glycerine, and often disappears entirely when it has penetrated the injured surface, since it substitutes a moisture that relaxes the part for the dryness, and a sensation of freshness for that of heat. In pathology, phenomena follow each other, and it has been remarked in burns that when the pain is persistent, in general the consecutive inflammatory reaction is very intense. Would we prevent an active inflammation when we *quiet* the primary pain with glycerine? We do not deny such influence, but it is explained better by turning attention to the power glycerine possesses of preserving a slight excitation of sores, while it dissipates such irritation when it is developed. The glycerine, by opposing an exuberance of fleshy granulations, procures a cicatrix more even and regular than that obtained through ordinary dressing.

Ulcers, Ulcerations, and Chancres.—Glycerine alone may insure a cure of certain ulcers, but it is mostly employed as a preparation for, or an adjuvant to, general medication, or simply as a palliative. In ulcers springing from local vice, glycerine is used as a preparatory means to another treatment—compression by the aid of agglutinating bandages. The latter treatment succeeds best when it is applied to an ulcer restored to its simplest form. But the bearers of ulcers generally belong to the indigent class, or have laborious occupations, and have only recourse to the surgeon when the complications oblige them to cease work. These complications are: inflammation of the ulcer,

gangrene of some of its points, exuberance of fungosities on its surface, eczematous eruptions, and the development of callosities on its edges. Glycerine dressings cause these accidents to disappear, and then the application of bandages insures a prompt cure.

In cases of atonic, scorbutic, scrofulous, and syphilitic ulcers, the local action of glycerine wonderfully aids internal medication, by stimulating the sore, and keeping it in a condition favorable to cicatrization.

In cases of cancerous ulcers, it is a palliative, possessed of useful properties. Where there is much pain, it is well to associate laudanum, or watery extract of opium, with the glycerine.

An ulcerative inflammation may seize a sore. This assumes, then, a violet-red color, becomes painful, and furnishes an abundance of unhealthy pus. There is soon developed another sore on the first, which enlarges superficially and vertically by destruction of tissues. Such an ulcerative action may be seen often on the surface of a blistered skin in young children, becoming an unfortunate complication. Glycerine will arrest the process of disorganization, subdue the pain, determine the formation of granulations that will furnish healthy pus, and bring about the reparation of the parts destroyed, and the cicatrization of the sore.

Demarquay has employed glycerine in injections, (30 grammes to 250 of the liquid employed,) in cases of ulcerations of the lower part of the large intestine, with good effect. Dr. Van Holsbeck combats ulcerations of the margin of the anus constituting fissures, with glycerine holding tannin in solution. A pledget of lint, moistened with glycerine solution of tannin, is introduced carefully, morning and evening. He relates a case of cure in five days, under this treatment. The use of glycerine in chancres insures the cleansing of the ulcerated surface, and resolution of the induration of an infectious chancre.

Fissures—Chilblains.—In such cases the glycerine is the vehicle for the administration of other substances. Stratin devised the two following formulæ for excoriations, cracks in the breast, lips, hands, &c.:

R.—Gum. tragacanth. pur.,	parts,	8 to 15
Aquæ calcis,	"	120
Glycerine, purific.,	"	30
Aquæ ros. distillat.,	"	100

This forms a soft, gelatinous compound, to be employed as an ointment or embrocation.

R.—Sodæ bibor.,	parts,	2 to 4
Glycerine,	"	15
Aquæ ros.,	"	125

This forms a lotion.

Dr. Brinton has employed successfully, in cracks of the tongue, the following:

℞.—Sodæ bibor.,	parts,	2½
Glycerine,	"	30
Aquæ,	"	120

Diseases of the Skin.—After what has been said of the properties of glycerine, if we except some febrile cutaneous affections, there can be no cutaneous affection in which it is not more or less useful. It may change the vitality, as in eczema, relieve a painful tension of the skin, as in erysipelas, the dryness of the epidermis in pityriasis and ichthyosis; oppose the thickening and splitting of tissues in lichen, psoriasis inveterata; quiet the itching, sometimes terrible, of pruriginous affections; prevent the formation of crusts; act favorably on the ulcerations of pemphigus and rupia; diminish the abundance of profuse sweatings, and destroy their unpleasant odor.

Anciaux recommends the following in erysipelas:

℞.—Pulv. alum.,	grammes,	xxx.
Precip. alb.,	"	i.
Glycerine,	"	C.

Shake in a flask until it assumes a creamy consistency.

E. Vidal employs the following glycerole in herpes præputialis:

℞.—Glycerine,	40	grammes.
Tannin,	1	"

This has proved very successful. In one case, the disease disappeared in two days, having resisted, for six months, applications of various kinds, mercurial and others.

Mons. Bourguignon has devised a most elegant prescription for *scabies*, using glycerine as the menstruum, and effecting a cure after a single friction:

℞.—Vitell. ov.,	2.		
Tinct. Lavand.,	ää.,	5	grammes.
" Limonis,			
" Menthæ,			
" Cheiranth,	ää.,	8	"
" Canella,			
" Tragacanthæ,		2	"
" Pulv. sulphur,		100	"
" Glycerine,		200	"

Mix the essences thoroughly with the yolks of the eggs, then add the tragacanth; let the mucilage be perfectly formed, and then add, by small quantities, the glycerine and the sulphur.

A cheaper form is found in the following preparation:

℞.—Tragacanthæ,		gramme	1
Potassæ subcarb.,		"	50
Pulv. Sulphur,		"	100
Glycerine,		"	200
Tinct. Lavand.,			
" Limon.,			
" Menthæ,	ää.,	"	1
" Cheiranth,			
" Canella,			
			356

Make a mucilage of the tragacanth with 30 grammes of glycerine; add the carbonate of potassa; mix until the solution is perfect, then add the sulphur and glycerine in small quantities, and the aromatics.

In certain forms of lichen, Chausit recommends a glycerole of aloes, which may be prepared by evaporating the tincture of aloes, and mixing the solid residuum left with glycerine.

In Vienna, lupus, goitre, scrofulous ulcers, constitutional syphilitic ulcers, &c., are treated by the following:

℞.—Iodide of potassium,	one part.
Glycerine,	two parts.
These to be poured on Iodine,	one part.

Glycerine has been employed, as is known, by Wakely in diseases of the external ear, and by Taylor in xerophthalmia, in ulcerous stomatitis, and in angina granulosa. In vaginitis, Demarquay has succeeded by using tampons soaked with the following:

℞.—Glycerine,	100	grammes.
Tannin,	10 to 20	"

The tannin is completely dissolved by the glycerine, and the result is a solution of a beautiful brown color, bordering upon a yellow, transparent, readily taken up by a tampon of charpie or cotton, and, after application, not running out, even in the erect position.

The preceding has been condensed from Demarquay's Memoir, and want of space prevents us from transferring the whole to our pages. Enough, however, has been presented to satisfy our readers that glycerine is likely to be of immense aid to surgery in all its departments. Medically, hitherto, it has been employed with no special effect, except in dysentery, where happy results were attained by giving two spoonsful per hour, and employing injections containing 30 grammes to 150 of the liquid employed.—*Gazette Méd. de Paris*, No. 25, 26, and 27.

L. H. S.

Monthly Summary of Colemporary Medical Journalism. By O. C. GIBBS, M.D., Frewsburg, N. Y.

Foreign Body in the Air-passages, Presenting some Peculiarities in its Sequence.—In the *N. A. Medico-Chirurgical Review*, for September, Dr. E. J. Fountain, of Davenport, Iowa, reports an interesting case of foreign substance lodged in the right bronchial tube, which resulted in abscess, or gangrene of the lung, which perforated the diaphragm and discharged its fœtid contents into the colon. The patient was a lad of ten years. The foreign body was the round head of a thigh-bone of a chicken. A diffused tumor made its appearance over the lower border of the ribs, accompanied with great tenderness and pain, about the 40th day after the accident. About fifteen days later, fœtid pus, in frequent evacuations, began to pass the bowels, to the great relief of the patient. The tumefaction passed away, but the cough still remained troublesome. About a month after the rupture of the abscess, the patient coughed up the bone, and from this point recovery was rapid. The case is here referred to because, so far as we know, it is *unique*. It also presents at least one point of practical interest: it was, by one or more of the physicians who saw it, considered to be a case of hepatic abscess. As low as was the foreign body, its removal could only be safely trusted to the efforts of nature, while the consequent symptoms were treated upon general principles and in accordance with an enlightened common sense.

Protrusion of the Stomach into the Cavity of the Chest.—In the same number of the journal above referred to, Dr. C. H. Spilman, of Harrodsburg, Ky., reports a case quite as *unique* as the one just quoted. "John Bull, a free man of color, on the night of the 22d of May, 1857, was stabbed in the left side; the knife entering between the seventh and eighth ribs into the cavity of the chest, passing into the abdomen, and making an incision in the diaphragm of about two and a half inches in length." The patient survived ten days: "every effort to procure an action from the bowels proved unavailing. The stomach received food, water, and medicine, but seemed only a passive receptacle; and nothing passing beyond, and being kept in a constant state of repletion, the regurgitation seemed simply an overflow of that organ."

The stomach was found, after death, in the cavity of the chest. It is probable that during some of the early efforts of severe vomiting the stomach passed through the cut in the diaphragm.

Dr. Dickson, in his Elements of Medicine, says it is a melancholy *consolation* to reflect, that the *outlets* from life are so numerous that we may reach the grave by a shorter and more pleasing cut than through

driveling dotage! Migration of the stomach into the cavity of the chest, we believe, is an addition to the usually recognized outlets.

Obstinate Intermittents cured with Arsenic.—In the Sept. number of the *Lancet and Observer*, Dr. L. D. Sheets, of Liberty, Indiana, makes favorable mention of Fowler's solution, in effecting a permanent cure of intermittent fever. He says, "My mode of treatment is to arrest the disease with quinine, and then to administer the arsenic in about twelve-drop doses, three times a day, until it begins to produce its specific effects upon the system, which are usually first manifested by swelling of the eyelids."

This is by no means new treatment, and we have no doubt of its efficacy. We have made reference to Dr. Sheets' article, for the purpose of affording us an opportunity of giving expression to our own experience. We have had a reasonable opportunity to observe obstinate intermittents, and, what may seem surprising, we never saw a case refuse to be cured, nor to stay cured for the season. We always trusted to a solution of quinine in tartaric acid and water, with the addition of laudanum. We have never exceeded ten grains of quinine at one dose, and have never repeated that the same day. With the addition of its own weight of tartaric acid, quinine is readily soluble in water, and we are of the opinion that the resulting *tartrate* is more efficient than the *sulphate*.

Our plan has been, if there is no hurry, to give first a cathartic containing calomel; after the operation of which, and three hours before the expected paroxysm, we would administer from five to ten grains of quinine in solution, as above, with laudanum equivalent to from two to four grains of opium, and send the patient to bed. This, in our hands, has never failed to arrest the paroxysm; and the same, or even a diminished dose, every morning, for a week, *and then once a week during* THE *malarial season*, has maintained a perfect cure. In protracted cases, where functional or organic derangements have resulted, of course other treatment, adapted to each individual case, has been instituted. In our judgment, relapses would be very infrequent if treatment were continued sufficiently long.

Prof. Austin Flint's Remarks on Typhoid Fever.—In the *New York Monthly Review and Buffalo Medical Journal*, Prof. Austin Flint reports nine cases of typhoid fever, occurring in the Charity Hospital of New Orleans, during his service there last winter. This disease was found to present the same symptomatic phenomena as at the North. He says, "The indications for treatment are the same at New Orleans as elsewhere. The treatment pursued in the cases

reported was simple and uniform, but certainly not devoid of efficiency. In all the cases, save one, it consisted, in addition to opium or the sulphate of morphia, administered by the mouth or rectum in doses sufficient to keep the diarrhœa in check, of sustaining measures; in other words, of brandy and concentrated nourishment. These measures were pressed in proportion to the evidence afforded by the symptoms of the extent to which the vital powers were compromised by the disease."

"The importance of these measures in the treatment of typhoid fever is no novelty in English and American medical practice; but it is not fully appreciated by the majority of practitioners. That the pulse falls and is prevented from rising in frequency, in some cases, by the administration of from one to two ounces of brandy hourly; and that the free use of spirits is not only consistent with, but may be rendered still more important by pneumonia, or some other inflammatory complication, is an innovation in therapeutics so much at variance with traditionary opinions, as not to be readily adopted without the evidence of personal observation." Of the nine cases reported, but one proved fatal. We believe that the treatment of typhoid fever, as taught in most authoritative works, is destined to very great improvement. Early support is of the first importance. Practitioners have been far too afraid of opiates, which we consider second only to support. In typhoid conditions, we have certainly seen the pulse reduced as promptly under the use of quinine as under veratrum viride, and we consider the former far the most appropriate remedy.

An Inquiry into the Character of Green and Melænal Discharges from the Bowels.—In the September issue of the *N. A. Medico-Chirurgical Review*, S. G. Armor, M.D., has a very interesting article under the above heading. From the days of Chomel to those of the late Dr. Golding Bird, nearly all authorities taught that green stools were an evidence of increased or perverted hepatic secretion. Calomel has been administered, and the resulting green evacuations from the bowels, it has been supposed, were the result of the stimulating action of this agent upon the liver, thereby increasing its biliary secretions. Dr. Armor takes issue upon these points, (a few others have previously done the same,) and attempts to prove that both ideas are contrary to facts. It is affirmed, "*First*, that biliary substances proper disappear in their passage through the intestines; *second*, that the characteristic color of the fæcal dejections depends not upon the chief constituents of bile, but upon its coloring matter, the contents of the

bowels becoming stained by its presence, just as the tissues and fluids of the body become colored in jaundice."

It is claimed that if bile be present in green stools, it is so in diminished rather than in increased quantities. "From long and close observation, and careful analysis, Dr. Golding Bird arrived at the conclusion that green discharges have at least no *direct* connection with morbid biliary secretion, but that they are occasioned *by a morbid exudation from the intestinal mucous membrane.*" This exudation is dependent upon two conditions: "First, arrest of hepatic secretion, growing out of congestion, (of the portal venous system;) second, *excessive acid fermentation of the fæcal contents, resulting from the absence of bile*, as demonstrated by the experiments of Bidder, Schmidt, and others."

That green stools follow the administration of calomel cannot be denied, nor that they are quite peculiar to the administration of this drug; but it does not necessarily follow as a logical sequence, that such discharges are evidence of quickened biliary secretion. "Hermann asserts that powdered calomel, when triturated with yellowish-brown excrements, causes them to assume a greenish color." Dr. Armor says, "The green stools, *which* follow the *administration of calomel*, depend upon the presence of the sulphide of mercury. The analyses of Dr. Golding Bird, Simon, and others, show but a *trace of bile* in such discharges."

It is claimed that "the characteristic color of the fæcal dejections depends upon the presence of the *coloring matter* of the bile, and not upon the presence of bile proper."

There are some other points discussed, and facts enunciated in the paper before us, but these are the most important. These opinions, if subsequent observations shall prove them correct, will necessarily revolutionize many of our old opinions, and compel us to restudy the action of calomel in the system.

We hail with pleasure any observations upon this obscure subject. There are some practices we never could reconcile with the old opinions. If green stools were the result of excess of bile, why should calomel, which was supposed to increase the flow, be advised in the diarrhœa of children, accompanied with such discharges? If calomel is a stimulant to the liver, why should it be depended upon in acute and chronic hepatitis? The science of medicine needs all the talent that it can command to unravel its mysteries.

Treatment of Vomiting in Pregnancy.—In the *Boston Medical and Surgical Journal*, for Sept. 1st, Dr. J. H. Warren, of Neponset, has

an article upon the treatment of nausea and vomiting in pregnancy, in which he speaks highly of the following application to the os uteri:

R.—Tinct. benzoin., ʒij.
Chloric. ether., ʒj.
Acet. morphiæ, grs. ij. M.

"It should be painted upon the os and cervix, once in three or four days; and may be continued throughout the whole period of pregnancy, without any unpleasant effects."

It is only in severe and protracted cases that such treatment would be submitted to. We have no doubt of the propriety of local treatment to the os uteri in such cases. We have been in the habit of ordering vaginal injections of a weak solution of sulphate of zinc in a decoction of poppies, or some mucilaginous liquid, and the insertion of a pill of solid opium into the rectum once a day, or even oftener. We believe that the use of opium, per rectum, is not sufficiently put in requisition, nor its benefits appreciated. In regard to medicines administered by the mouth, we have derived more benefit from a solution of creasote in chloroform, and administered each in appropriate doses, than from anything else.

Treatment of Mammary Abscess.—In the same number of the *Boston Medical and Surgical Journal*, as reported in the extracts from the records of the Boston Society for Medical Observation, "Dr. Buckingham thought an abscess from lactation unnecessary. Nineteen out of twenty, he said, are the result of meddlesome treatment. He strongly objected to the usual custom of nurses, of beginning to rub the breast, or to apply the breast-pump, as soon as any pain is felt in the breast. The breast should be let entirely alone, and the child should be applied only to the well side: its nursing will cause milk enough to run from the affected side to relieve it. If both breasts are affected, the same plan should still be followed, and the child should not nurse either of them. They will swell, and grow painful, for from twenty-four to thirty-six hours, when a flow of milk will take place, and the trouble be relieved."

Other physicians speak highly of the same treatment. To us the advocacy of this plan is new; though we have long been convinced that the rubbing, squeezing, and breast-pumping only add to the irritation and pain. We have more confidence than Dr. Buckingham in the utility of treatment. We believe that the local application of belladonna, with the internal use of saline cathartics and iodide of potassium, if used early, will abort at least four out of five cases.

Spontaneous Expulsion of a Fibrous Polypus.—Dr. H. K. Oliver

reports, in the *Boston Medical and Surgical Journal*, a case of polypus of the uterus in a patient aged about thirty-five years, and unmarried, that was spontaneously expelled. Previous to its expulsion, the abdominal tumor appeared of the size of a uterus gravid at from six to seven months. The tumor was expelled after several days of uterine contractions, not unlike regular labor-pains, and quite as tedious. The product of the accouchement was quite satisfactory to the patient under the circumstances. Though somewhat decomposed, the tumor weighed, after removal, two and three-fourth pounds. The patient died a few days later, of peritonitis. We think, had the *écraseur* been used instead of the double ligature, it is possible that the peritonitis would not have supervened. Dr. Copland mentions a case that came under his observation, where two fibrous polypi were expelled by uterine contractions, the aggregate weight of which was about five pounds.

Appendix Cœci discharged per Rectum.—In the above-mentioned journal, for September 15th, a case is reported by Dr. Jackson, in which the appendix cœci was discharged from the bowels, several days after the patient had recovered from what seemed to be an intussusception, or at least an obstinate obstruction. The patient had been bled; his bowels repeatedly blistered; various cathartics given, and repeated; copious enemata administered; also, tobacco had been given per rectum. Five days the patient was subject to this treatment, when fæcal evacuations began to pass. Five days later he was discharged, and about four days after this the appendix cœci was discharged. The patient recovered, and ever since, a period of three years, has been perfectly well. The case is probably *unique*, and presents some points of interest, which will readily suggest themselves to the reader.

Veratrum Viride in Chorea.—In the *Southern Medical and Surgical Journal*, for September, Dr. Baker, of Alabama, has a well-written article upon the above subject. The article is somewhat elaborate, but we will try to give, in a few words, the main results. In one very bad case of chorea, in which all the usual remedies had been used for eleven days without benefit, Dr. Baker commenced the use of veratrum viride, and says, "As she was gradually brought under its influence, the turmoil began to cease; the face, which had been worked by its muscles into the most ludicrous and horrible distortion, became placid and intelligent, the head had ceased its everlasting jerking, the extremities lay still, the body left off writhing, *and the patient quietly passed into a peaceful and profound slumber.* This sleep was deep and

long, as it was the first, with few and slight exceptions, that she had had in nearly two weeks; and the quiet that the muscles now received was all that had occurred, save during those few and short slumbers." "The veratrum was continued for several days, the convulsive movements ceased altogether, the muscles became completely obedient to the will, and the lady returned to perfect health and blooming beauty, under a judicious and properly regulated tonic course of treatment." Other and similar cases are reported. Dr. Baker thinks the remedy is equally efficacious in *eclampsia* in children. He says: "Indeed, *I feel perfectly assured that it is a physical impossibility for convulsions to continue, after the system has been fully impressed by the remedy.* My experience is, that in these cases, the medicine is tolerated in much larger doses than under ordinary circumstances." We have been of the opinion that the virtues of the veratrum viride were greatly overrated; we sincerely hope, however, that subsequent experience may confirm Dr. Baker's most sanguine expectations. We are confident that, in many instances, the benefits following the use of the veratrum have been due more to its adjuncts than to that medicine itself. Thus, Dr. Baker thinks the veratrum is appropriate to cases of *typhoid pneumonia*, because, as he says, "I have now in my mind such a case, wherein the administration of five drops of veratrum, *combined with five grains of quinine*, (the italics are ours,) every three hours, wrought, in the space of twelve hours, a change that seemed almost a miracle." We have in our own mind several cases, where the improvement was probably not less decided, from the same dose of quinine administered conjointly with brandy.

Treatment of Placenta Prævia.—In the same number of the *Southern Medical and Surgical Journal*, Dr. W. A. Mathews, of Fort Valley, Ga., has an article on the treatment of Placenta Prævia. He advises ergot and the tampon, when the hæmorrhage is profuse. Entire detachment of the placenta, or delivery by turning, as advised by some, are not always, if even often, the best procedures. Ergot and the cold douche, to secure firm uterine contractions, rupture of the membranes, that the cavity of the uterus may be diminished, and the tampon, if necessary, are the more appropriate remedial means.

Diphtheria.—In the *Virginia Medical Journal*, for September, Dr. Thomas Pollard, of Richmond, Va., has an article upon the above subject. He considers the disease asthenic in nature, and, in severe or malignant forms, contagious. He advises, for constitutional remedies, muriated tincture of iron, and the chlorate of potash, nourishing diet, and even wine in malignant cases. For local treatment, he pre-

fers a strong solution of nitrate of silver In Dr. Pollard's views there is nothing new, but they are none the less interesting in consequence. Patients have been too often bled and mercurialized in diphtheria. In severe cases, quinine and Dover's powder, muriated tincture of iron, and chlorate of potash, should, in our opinion, form the staple of constitutional treatment.

Treatment of Fractured Lower Jaw.—In the *Savannah Journal of Medicine* for September, Prof. W. G. Bullock has an article on the treatment of fractures of the lower jaw-bone, in which a new apparatus is figured and described. "The instrument consists of a grooved plate of ivory or metal, accurately adjusted to the teeth, or alveola, if the patient has no teeth, (by first taking the impression in gutta percha, wax, or plaster of Paris,) to which grooved plate are welded projecting bars, or arms, curved so as to prevent pressure on the lower lip, with holes at their extremities, through which pass pieces of narrow tape, cord, thread, or twine, to attach it to a wooden, ivory, or metal bar or chin-piece under the jaw, serving the purpose of a submaxillary splint. This composes the entire apparatus, and is applied by fitting the grooved plate to the teeth, and tying the ends of the thread or tape previously passed through holes in the submaxillary splint." "It will be understood that no previous application of a bandage applied around the head and face to restrain muscular action is necessary, nor is any bandage or handkerchief tied over the vertex, to keep the splint in position, at all required. With this apparatus applied, the patient can go about his usual business, take his food, and talk, without fear of displacing the fractured portions of bone." That this is a decided improvement, so far as the comfort of the patient is concerned, we have no doubt; but, if we rightly understand the apparatus, a new one is required for each case, which will prove a decided objection to its use in country practice. Remote from the opportunities of constructing such appliances as the above, the manner of dressing described by ourselves, in the February number of the *Buffalo Medical Journal* for 1848, will be found to answer an effectual purpose.

Treatment of Typhoid Fever.—In the same number of the *Savannah Journal of Medicine*, just referred to, Prof. J. B. Read speaks highly of the syrup of the hypophosphites of iron, soda, lime, and potass in typhoid fever. He gave it in 20-drop doses every two hours, surely with very marked effect in one very bad case, in which all the usual means had failed to develop favorable symptoms.

Puerperal Convulsions.—In the *Medical and Surgical Reporter*, for September 3d, Dr. McGrath, of Pittsburg, reports a case of convul-

sions successfully treated by inhalation of chloroform, after two ineffectual bleedings. Dr. McGrath seems surprised at the result, and speaks of chloroform as though it were a new remedy in such cases, having been used only by Dr. Tracy, of Melbourne, Australia.

In this section, we believe, all cases of puerperal convulsions are trusted to chloroform, and we have not heard of a case of death from that disease in this locality for several years. In the last five years, our friend Dr. Strong, of Westfield, N. Y., has treated many cases with chloroform, and with uniform success. In ten years of practice we have not lost a case of puerperal convulsions, nor a case of convulsions of any kind since we commenced using chloroform as a remedy in such cases. In the last three years we have treated perhaps fifty cases of convulsions, *not puerperal*, with this remedy, both in children and adults, with the same uniform success. It is never necessary to carry the remedy to its full anæsthetic effect, but it is sometimes necessary to continue its slight action for some time. In hysterical convulsions we know of nothing that acts so admirably.

Death from Epistaxis.—In the *Medical and Surgical Reporter*, for September 10th, Dr. Triplett, of Virginia, reports a case of death from epistaxis, which we allude to for the purpose of criticising the treatment. He placed the patient in the recumbent posture, with head raised on several pillows. From 10 A. M. until evening, astringents, plugging the nares, &c., were resorted to, without effect. Dr. Triplett says, "I now concluded to let him alone for several hours, and notice what effect the lead would have." "The next morning, to my great astonishment, I found him propped up in bed, and gnawing at a piece of boiled ham; all hæmorrhage had ceased." The doctor complained of his obduracy in sitting up, and ordered him again to the recumbent posture. In a few minutes a stream of blood issued from the nares again, which continued until he died.

The recumbent posture, *with the head elevated*, is the worst possible position in such cases. The recumbency facilitates the flow of blood to the head, while the cramped position of the neck impedes the venous circulation, and the consequent return of blood to the heart; cerebral congestion is the result, and an increase of epistaxis. The erect position should be maintained. It is true in this position a patient will faint sooner, but that is all the better.

Mammoth Tumor.—In the *Cleveland Medical Gazette*, for August, our much respected preceptor, Prof. John Delamater, of Cleveland, Ohio, reports perhaps the largest tumor on record. The patient resided at Pennfield, Lorain County, Ohio, and was between thirty-five

and forty years of age. When she was six months advanced in her first pregnancy, she was kicked by a cow in the right iliac region, to which injury she referred all her troubles. She conceived four times after this, and was delivered without serious accident, though generally prematurely, and of still-born children. The patient had two tumors: one occupying and greatly distending the abdomen; the other, and smaller, occupying the right labium, and extending to the nates. The first tumor made its appearance in 1840, and the second in 1844. The patient died in 1854, having been confined to the bed for several of the last years of life. No post-mortem was allowed; but, in order to render the body more shapeable for burial, the smaller and posterior tumor was removed. It was found to be of a fatty nature, containing a cyst communicating with the larger tumor, and with the peritoneum. This tumor filled a common wash-tub, and the two were estimated to weigh 275 pounds, while the body would probably not weigh more than 90 pounds.

Pyrogoff's Operation.—In the last three issues of the *Cleveland Medical Gazette*, Prof. G. C. E. Weber, M.D., has an article on *Pyrogoff's Osteoplastic Prolongation of the bones of the leg, with exarticulation in the tibio-tarsal articulation.* Dr. Weber recommends the operation in suitable cases, and reports four cases either performed by himself, or under his immediate supervision. The Dr. seems surprised that no one has put the operation of the great Russian surgeon to the test in this country, or, at least, that no reports of such cases have appeared in American journals. The editor of the *Medical and Surgical Reporter* says, that Dr. Pancoast has performed the operation several times, and that reports of such operations have been published in the last-named journal. The operation is, doubtless, deserving of more attention than it has received, and the profession are indebted to Prof. Weber for the elaborate essay, of which we have not space for a synopsis.

Fistula in Ano, and its Relation to Phthisis.—In the *Semi-Monthly Medical News*, for September 1st, Lewis Rogers, M D., of Louisville, has an able report upon the above subject. The opinions of several eminent physicians, both in this country and in Europe, are embodied in the report. We can make but brief quotations in illustration of the author's opinions: "Your committee *inclines* to the opinion that fistula in ano is, for the most part, salutary in its influence upon tuberculosis of the lungs." "It is rational to infer that tubercular fistulas, whilst they indicate a more profound vitiation of the system, exert, at the same time, a different influence from that of more benignant sinuses."

Dr. Rogers advises fistulas, occurring in connection with the tubercular diathesis, to be let alone. He says, "In persons strongly predisposed by inheritance to tuberculosis, and in those who are already the subjects of it, fistula in ano, of whatever variety, and whether viewed as a mere casual complication, or as holding some more intimate relation, should be touched with cautious hands."

The report does honor to the chairman of the committee, but we are not a convert to all the opinions expressed. We cannot look upon fistula in ano as curative in consumption. If it has any relation to pulmonary tuberculosis, it seems to us that relation must be one of *common origin*—that fistula in ano must originate in the depraved and cachectic condition of the body in which consumption has its origin. We should expect that a bad fistula would increase the constitutional impairment, and thus hasten the progress of tuberculosis. What philosophical reason is there for considering fistula in ano curative, more than the colliquative sweats and exhaustive diarrhœas that sometimes accompany the advanced stages of tubercular diseases? We know that philosophy must yield to facts, and, hence, await the facts.

Medical Inhalation in Consumption.—In the *Nashville Journal of Medicine and Surgery*, for September, J. N. Graham, M.D., of Chicago, has an article upon the above subject. He thinks well of inhalation, and reports several cases illustrative of benefit. He recommends Minthon's Inhaler. We give a formula or two, which he uses:

"R.—	Acidi hydrocyanici,		ʒij.
	Vin. ipecac.,		
	Elix. paregoric,	ää.,	ʒss.
	Tr. conii,		ʒij.
M.	Aquæ rosæ,		ʒxij.

Inhale ½ oz. three times a day."

"R.—	Cyan. potassæ,		grs.viij.
	Ext. stramonii,		ʒijss.
	Tr. ipecac.,		ʒj.
	Tr. lobeliæ,		
	Tr. strammoniæ,	ää.,	ʒvj.
M.	Lac. assafœtidæ,		ʒiv.

Inhale a tea spoonful three times a day."

Iodine also is recommended in some cases, in connection with conium. It is our opinion that regular physicians have too much neglected inhalations. The suffering consumptives, at least, have confidence in them, and they have long been the stock in trade upon which quacks have flourished. If physicians would give inhalations that attention which their importance demands, we have no doubt that

many consumptives would be kept out of the hands of ignorant and unprincipled quacks. In all constitutional diseases, with a local determination or manifestation, we can imagine how local means may be of service; but how, by their agency alone, as quacks affirm, radical and permanent cures can be effected, we cannot so easily conjecture. Be the local medication what it may, whether inhalation or bronchial injection, as recommended by Dr. Green, of New York, in tubercular diseases, they should, in our humble opinion, be auxiliary to constitutional remedies. The tubercular diathesis, if eradicated at all, can only be so through constitutional means; while bronchial inflammations and tubercular excavations may be advantageously treated by local applications.

Muriated Tincture of Iron in Scarlatina.—In the August number of the *Oglethorpe Medical and Surgical Journal*, Prof. H. L. Byrd, of Savannah, has an article upon the above subject. Five years ago, Prof. Byrd published an article upon the same subject, in the *Charleston Medical Journal and Review*, in which he made the following enthusiastic remarks: "So much am I convinced of its value, that I would not willingly exchange it for all the other remedies which have heretofore been recommended in scarlet fever. I am not aware of the article having been noticed before." Prof. Byrd now supports his former opinions, and is more minute in regard to other treatment. He says: "The next step taken after the bowels have been properly evacuated is to reduce the force of the circulation, and this is effected by sponging the entire surface of the body with tepid water and vinegar, and the internal administration of tinct. verat. viride, and the chlorate of potass, the dose of each being regulated, of course, according to the age and strength of the patient." "As soon as the skin is soft, if the stomach is not irritable, the tincture of iron should be commenced with." To a child two years old he gives four drops, and increases two drops for each additional year, and gives in mucilage of gum-arabic. Nitrate of silver, and solutions of chlorides of soda and lime, are used in the throat. We have no doubts of the propriety of this treatment. Several years ago, and before we knew that any person else had used tonics in scarlet fever, we commenced with quinine and Dover's powder and chlorate of potass, at the very first, with nitrate of silver locally—with tannin added to the powders when the bowels were too loose, and rhubarb when too costive—and the results were so satisfactory that we have never since materially deviated from it.

Treatment of Spina Bifida.—In the *Chicago Medical Journal*, for

September, Prof. Brainard has an article upon spina bifida, and its treatment. It is well known to the profession that this affection has, by the most eminent surgeons, generally been considered incurable. Various means have, however, been proposed by different surgeons, and cures occasionally been effected. In 1847, Prof. Brainard reported a case of cure by iodine injections—the first in which this expedient had ever been put to the test. Ten cases have now been operated on by iodine injections; five by Prof. Brainard, two by Dr. Crawford, under Dr. Brainard's direction, one by Velpeau, and one by Nelaton. Cures have not resulted in all the cases, yet we believe the majority have been cured. Prof. Brainard lays down the following rules for operation:

"1. Make the puncture in the sound skin at the *side* of the tumor.

2. Inject the solution of iodine and iodide of potassium, commencing with $\frac{1}{4}$ grain of the former to $\frac{3}{4}$ of the latter, and retain it by slight pressure.

3. Evacuate no more of the liquid than the quantity of injection about to be thrown in.

4. If convulsions supervene, the fluid may be drawn out, and its place filled with distilled water.

5. Lay the patient on the face; and if there be heat, apply evaporating lotions to the tumor and to the head.

6. When the tumor becomes flaccid, apply collodion or other means of contracting the skin. This should be continued for some months after the swelling has disappeared.

7. After the effect of an injection is past, repeat it as many times as may be necessary, and gradually increase the strength according to the effect produced."

Under the following circumstances, Prof. Brainard does not advise interference:

"1. When the tumor is small, and the patient several years of age and in good health.

"2. When the child is laboring under acute disease, whether this be of the head, of the spinal cord, convulsions, &c."

Nasal Polypus—New Treatment.—In the same number of the *Chicago Medical Journal*, just referred to, J. H. Reeder, M.D., of Lacon, Ill., reports two cases of nasal polypus cured with injections of muriated tincture of iron, slightly reduced. Of one case, he says: "I injected the nostril with tr. mur. ferri, diluted with water, and then forced a piece of moistened sponge into the nostril, and told my patient to return in a couple of days. The next morning she called, and

informed me that soon after she arose from her bed the whole mass had escaped from the nostril posteriorly, and had been thrown out on the floor, a semi-fluid, opaque mass."

The other, a very bad case, was cured in about a week. Should this treatment prove generally efficacious, it will be a valuable discovery, as polypi in other localities less accessible to removal will doubtless yield to its action equally well.

REVIEWS AND BIBLIOGRAPHY.

The Progress and the Spirit of Medical Science: An Anniversary Discourse delivered before the New York Academy of Medicine, November 25, 1858. By E. R. Peaslee, A.M., M.D., Professor of Physiology and Pathology in the New York Medical College. Published by order of the Academy. New York: W. H. Tinson. 1859.

This address is neither rhetorically egotistical nor tediously historical, as might not unkindly be said of some of its predecessors. It is simply and eminently philosophical.

It is, in truth, a scholarly production, with manly thoughts conceived in no self-complacent spirit, but worthily and for a useful end.

Likening our profession to a noble vessel, it seems to us, a common sailor merely, as if some officer had come on deck, and measuring the angle of the stars, and looking at the time, the course, the speed of the ship and her track already mapped in history, had told us where we were, and in what direction lay our proper course.

To many sailing ignorantly with the ship, intelligence like this cannot fail to be of interest. Their efforts henceforth will be the heartier and the livelier, even though the darkness and the fog be round them, if they know and feel that they are rightly headed.

It is strange how much loose thought prevails on the subject of medical science, and how vaguely, and even incorrectly, in the minds of its professed followers, are defined the true and legitimate lines along which it advances. It was doubtless to meet and correct this great fault, as well as because it was preliminary to the main subject of this address, that the true distinction between art and science should be first drawn; next, what constituents are needed to make up any actual science set forth; and lastly, the position or character of medical science, as compared with other sciences, correctly stated.

Art is not science, nor is it based on science. With cunning hand and graceful step she marches on before, manipulating, changing, inventing, and all naturally, skillfully, or usefully, as she goes. Science, calm and clear-eyed, comes slowly after, moving on from point to point, sifting, assigning, ascertaining the very truth of facts, and possessing herself of the soul that animates them, dares even to predict their recurrence. The object of the first may be pleasure or utility; the object of the latter must be truth.

Are there not those in our profession who practice medicine as an art—perhaps a trade—who know nothing of it as a science?

What, then, constitutes a science? Facts which are facts, ideas which are ideas, that is, correct and distinct ones, and truths or principles that are general and well established—these are the elements which in any department of knowledge, when classified and arranged, make up in that department, a science. Strictly speaking, all sciences should be, as far as advanced, perfectly exact and positive; but, from the nature of their elements, they are only relatively so. According as these admit of being accurately weighed, measured, or numbered, in just so far do they become exact or positive. Medicine, therefore, except partially in the direction of Anatomy, cannot be classed, like Chemistry or Physics, as one of the exact sciences. Compared with these, it is, as a whole, a science of probability—the certainty being as to its degree, and the degree depending upon the quality of its established truths, facts, and ideas. Now, since there are but two scientific methods of obtaining truth—the inductive and the deductive—and since, in many minds, are somehow dimly associated with the first Newton's apple and the law of gravity, Harvey's finger tracing out the blood-current, and other brilliant discoveries; and with the second Thomas Aquinus and old Dun Scotus, and musty logic, smelling only of "words, words, words," it may be as well, for clearness' sake, to inquire what is really meant by these two methods.

Some imagine that reason operates differently, according as one method or the other is pursued. But it is not so. This faculty, indeed, cannot change the direction it must follow. The process it institutes in either method is the same, and in reality syllogistic in form. The peculiarity consists in the manner of obtaining the data on which it works. The inductive method leads in patiently, one by one, a multitude of reliable and comparable facts, and from the mass rises to the general law that governs them. The deductive method boldly starts with theories or propositions, and from ideas already in the mind, deduces an explanation of the facts considered. In the first,

the staple out of which truth is woven is facts; in the second, general propositions. Both methods are necessary for the completion of every science, and both need to have their conclusions verified: the one, by a repetition of the process upon a new series of facts; and the other, by the *experimentum crucis* of the facts themselves.

The path along which the inductive method passes is straight-lined and grooved, admitting only certain classes of particular facts to develop the conclusion. The deductive method, however, has far wider scope. It marches to its conclusions from ideas, theories, single facts even, or at least a number too small to warrant the use of its associate method.

Inasmuch, then, as the facts to be used in the inductive method must be real—must be comparable—must be sufficiently numerous, and the reasoning process instituted upon them logically executed, the mind that would use this method profitably or well must have that happy balance of the perceptive and the rational faculties that make the good observer and the good reasoner combined. How rare they are!

Some are good observers, but they cannot collate; some are unsafe comparers, as, for instance, adepts in one department passing upon orders of facts in which they are not equally versed. Some are skillful in the marshaling of particulars, but without the logical power to lead them to conclusions. The inductive mind is cautious and conservative—the deductive bold and progressive. The motto of the first might be, "*Lente et tutissime;*" of the second, "*Non progredi est regredi.*" Children and most men are naturally inductive—poets, geniuses, and most women, are naturally deductive.

The same mental characteristics apply to nations. Of old, the Greeks were eminently a deductive people. The Romans were not so. Had Bacon preceded Cicero, they might have carried their eagles as far on the field of science as of war. But as it was, the Roman mind seemed rather materialistic than scientific. The following comparison, in this respect, of the three great efficient modern peoples, we extract entire. It is of exceeding interest, as helping to express the character of our own national mind:

"The English mind is intensely and almost exclusively inductive; and therefore slow, prudent, conservative and practical. The German mind is especially, but by no means exclusively, deductive; hence it is progressive, theoretical, and even transcendental, but less practical. The French mind is especially observant and adaptive—inductive or deductive, practical or theoretical, as may be required — versatile,

revolutionary, and highly æsthetic. If I may also add the traits of American mind, I should say it is far more deductive than inductive, but is still practical; though restless, inventive, and progressive. Compared with the preceding, it evidently operates under a "high pressure;" but it is capable both of observing and reasoning well, provided it can only *wait*."

There seems to be a prevailing disposition to exalt the inductive above the deductive method. So strong is the odor of this faith instilled into some minds in schoolboy days, perhaps, that even now conclusions, although verified, lose with them half their value, if they think them reached in any other way than by the inductive method. But Bacon never meant the method he proposed for the advancement of knowledge should entirely supplant the legitimate use of that instituted by his great prototype, Aristotle. He both admitted and recognized the value of the latter. Neither does the inductive, as so many suppose, exclude the rational method. Both are invaluable in their proper places, and each has its place.

This, then, is a grievous error, which, together with the common misconception of the spirit of the inductive method, both in regard to the acquisition of data and the reasoning process instituted upon them, as already hinted at, has in all probability greatly retarded the advance of science, and made many to become rather the blind worshipers of those who merely mould into scientific forms, clay-cold masses of facts, than those, who, by their creative genius, breathe into such masses the breath of a living principle.

Of itself, the deductive method was not so much to blame for the little fruit it bore its early cultivators. The real fault lay not in the method, but in its application. In the paucity of established facts, the ancients reasoned from ideas preconceived and independent of facts, and not from ideas based on actual facts. This necessity no longer exists. Indeed, with some sciences, the deductive is now the only method available for their advance. The inductive having temporarily exhausted itself, must wait for new materials to warrant further conclusions. Again, we also know that with sound premises and a reasoning process logically conducted, our conclusions must be sound. Starting, then, with ideas established upon real facts, careful, indeed, that they be not the figments of a theorizing brain, there is both in the power of the deductive method itself, and in the rewards it promises, full justification and high inducement for a more general return to its use. We see no reason why, mounted on these firm thought-bases,

modern mind should not catch earlier, broader, and brighter views of truth than ever before.

Applying now the philosophy we have been considering to our own science, medicine is found, in its various departments, dependent for its advance upon both the inductive and deductive methods. That so far as regards the science of *structure* or anatomy, the path it takes is mainly inductive; that so far as regards the science of *function*, which embraces physiology and pathology, the path is both inductive and deductive, and yet also teleological;* and finally, that so far as regards the science of *conservation*, which embraces hygiene and therapeutics, both in their medical and surgical aspects, the science of medicine proceeds mainly by the inductive method.

These, then, are the great cosmographic lines that must control henceforth, as they have heretofore, the real progress of our science. With their tabular statement closes the first division of this discourse.

We have shown somewhat the color of our appreciation of this preliminary labor, by the fullness of our analysis, and yet we do not think we overrate its value when we bespeak for it from every thoughtful reader thanks and the highest praise.

Is it not a pleasant thing in any inquiry, and especially in one which seeks the true foundations of the science we adore, to have some clear and honest mind precede our steps, and, divesting from the subject the tangled misconceptions that have overgrown it, make plain the very pillars of the shrine at which we worship?

We come now prepared to trace the past progress of our science—to comprehend its present position, and to discover the character of the spirit now breathing through it.

A very general survey recognizes in this progress three great epochs: 1st, the superstitious; 2d, the epoch of unsystematized learning; and, 3d, the epoch of systematized learning or actual science. Now, epochs in history are to a great extent conventional periods, and may be mul-

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* By this method is meant the assumption of a final purpose for every part, and working out from structure or other circumstances the real function of such part. In other words, it is "the doctrine of final causes," originating with Aristotle. As if one should say the teleological or final purpose of moss, which in truth, loving not the sunlight, affects the polar side of trees, was to protect them from "the rude north wind's breath;" or that the final purpose of the cerumen of the ear was, by its unpleasant odor, to keep out noseless bugs from the external meatus. Bacon regarded this philosophy as sterile, as did Geoffrey St. Hilaire. If their judgment be not thought right, the illustrations given above will show at least how omniscient a caution is needed, to attain, by this method, correct conclusions.

tiplied or limited in number, according to the comprehensiveness of the view taken; but since so clear a thinker as Compte traces the development of all positive sciences by stages, somewhat similar to the divisions of the text, we rather like them, and think them simpler, or at least more natural, than those given by Renouard in his admirable History of Medicine.

In this brief notice we can do hardly more than give their dates and limits, leaving their history, and the philosophy of their history, here so succinctly and so well told, to be enjoyed by the reader from the pages of his own copy.

To the superstitious epoch is assigned a period of about 3,600 years, extending from the earliest primitive times to Hippocrates, or about B. C. 400. Its name expresses the character it wore, and one can well imagine how the medical artists of those days reveled in charms, and incantations, and religious rites. But as an age it passed away. Still, we have heard within the year, in this land of medical common schools, of the living brethren of a dead consumptive making of his heart and lungs a prophylactic burnt-offering to secure the soundness of their own; and we ourselves have read in city journals advertisements of sale of highly gifted cauls, at prices as fabulous as the properties claimed for them. How, like the seeds found in old Egyptian mummies do these wrinkled delusions sprout again !

To the second epoch is assigned the period of about 2,000 years, that lies between the time of Hippocrates, 400 B. C., and Harvey, A. D. 1620. But of the paternal, authoritative, and long-prevailing influence of the name and writings of Hippocrates—of Galen's labors —of sect-absorbing sect—of torpid centuries—of periods of medical skepticism, and of occult pseudo-science that ushered in the true, we have no time particularly to speak. If, during this long period, there was sometimes lifted up a little corner of the cloud that wrapped Truth's "sacred summit," yet, by the time the world looked up to catch the light, the fold was drawn again across its brow.

The 16th century was one of increase in the world of knowledge. By the new activity then put forth, the golden circle of all the sciences was greatly blessed. Brilliant discoveries in one department, while ringing through the world, seemed but the pealing preludes to others still more brilliant in other departments. In a century in which lived such men as Bacon, Newton, Galileo, Kepler, and the like, Harvey made deductively that discovery which, in the annals of our science, we may truly designate as grand—the circulation of the blood. The third epoch of systematized knowledge, or that of the actual science

of medicine, begins, then, with Harvey's time, and ends we know not yet in what millennium day of truth. A brief abstract of the progress of our science from the time the influence of this discovery began to be felt, down to the present, together with the mention of some of the names of those who helped to shape its course, all which we must omit, bring us at length to the personally interesting inquiry, of what is the present condition of our science.

Following the divisions already given, we find in the science of structure, that descriptive and surgical anatomy are nearly complete; and, also, as far as facts are concerned, pathological anatomy to be nearly in the same condition. Until new means or paths of observation are discovered, this latter branch can hope to advance but little beyond its present point of development. In histology, microscopic and comparative anatomy, there are both room for progress and reason to expect acquisitions valuable to physiology and pathology.

In the recent rapid advances made in the science of function, there is much occasion for just congratulation and even scientific pride, and yet the physiology and pathology of the present day seem to our author altogether too intensely chemical. An emphatic protest is entered against surrendering into the hands of those mostly conversant with another style of facts, and chiefly imbued by the spirit of a different science, the decisions of questions peculiarly belonging to those who, if not born, should be thorough-bred, physiologists and pathologists. Chemistry should be admitted as an aid and a companion, but not as a directing and controlling power. In the approximative resolution of the higher problems in these departments, she can only supply her own peculiar equation.

Physiology and pathology are not positive sciences, neither—because in some respects inductive—ought it to be thought that they must be advanced similarly to that of chemistry. But physiology is not only an inductive and deductive, but it is also a teleological science, which chemistry is not, and therefore is peculiar. Ignoring the organism in his devotion to the materials composing and sustaining it, the chemist would, out of C. H. N. O. plus a few crystallizable salts, plus a force identical with affinity, construct and run this complex human machine like any other piece of mechanism of which the patent had expired; and yet no cunning mixture or morphologic administration of these elements ever makes the epithelium cells of a gastric tubule secrete a juice that would subserve the purposes of intellection, or ever develops the germs of owls into unfeathered philosophers.

It is then the organism of the cell itself, acting through its own pe-

culiar vital force on these elements, and not these elements merely acting on the organism, that determines and controls the result.

In regard to the science of conservation, making the third and last of the subdivisions we have followed, we find that public hygiene has of late received, and is now receiving in all civilized countries, especial attention. When individually and collectively the human race not only recognizes the truth, but regulates its life by the already demonstrated principles of hygienic science, there will be seen astonishing results in the amelioration of mankind, not only physically, but also morally. That day, in spite of municipal blindness and fashionable folly, we believe will come.

The therapeutic branch of the science of conservation has advanced not so much by the discovery of new medicinal armamenta, as by giving greater simplicity and certainty to those we already have, and above all by the recognition of nature as the basic ingredient of every truly scientific prescription. Ever since disease began its course of medicine, this patient, silent, suffering angel has been doing her charitable work of renovation, as it were, unseen; but her day is coming, in which it will be accounted glory enough if we can but aid with our own poor skill the efficacy of her blessed efforts. To the complexion given by the responses to these two questions must all therapeutic exhibitions come at last. 1st, "Shall I in this case prescribe any medicine?" And if nature, with rest and appropriate diet, be adjudged insufficient for the cure; then, 2d, "What remedy shall be given, and what is the least amount that will accomplish the desired object?" Very slowly, and as it were something loth, we seem to pass in this department from our present ruder realm to the higher region indicated by these questions, and to the higher exercise of the faculties they imply. But our faces are turned thitherwards.

The numerical method initiated by Louis, and from which so much was claimed to regulate and define this branch of medicine, is found to be powerless. However interesting may be its statistics, we are not warranted in deducing from them conclusions binding in this department. The average of results is never the same as any one particular result, and is therefore inapplicable as the rule in that particular case. The value of the method is best shown in the barren record of improvement and discovery attendant upon its use.

To sum up now what has been said of the progress of our science, we feel that it is no longer, as Bacon said of it in his time, "a light and slender thing," but a grand and imperishable structure; which, although imperfect and unfinished, is worthy of our admiration, and

of the progressive and philosophical spirit that is year by year ennobling and advancing it to completion.

Finally, we are met by the claims of medical science upon medical men. How discharge them, and pay the debt that Bacon says is due from every one to his profession? The answer given is twofold—by our own labors, and by our encouragement of the labors of others. Three methods are designated under the first division of the answer: 1st. By ascertaining and correcting existing errors; 2d. By collecting and arranging established facts in monographs, treatises, &c.; and 3d. By making new additions to, or actual discoveries in, our science. Independent thought, and yet not skepticism, is the implied requisite for him pursuing the first; a careful analytic skill, a patient, logical, and systematic exercise of the rational faculties, seem necessary for the second; while he, who would succeed in the third, must be thoroughly grounded in the knowledge of everything already achieved in the department he seeks to advance, and have definite ideas of the object he wishes to accomplish. He must not confound observational with rational discovery, nor mistake "original investigation" for originality. He must also have the moral elements of a faith that makes the mind devout—a perseverance that counts not by any statutory system of ten, but, if need be, by one of ten thousand hours—a courage and an independence that fears not the epithet of theorist, and which, freely using the footholds and the scaffolding of those who have gone before, dares essay still higher points of view. With all these qualities intensified by "a glowing life" of labor, he may, perhaps, more than cancel the debt he owes his beloved science, by writing across it the glorious record of some happy discovery.

Of those pressing the paths we have indicated, by far the greater number crowd the last. Some there are, we know to be inspired with the love that wrestles patiently with doubt and pain, and complicated error, for the blessing of proclaiming universal truth. Some, perhaps, there may be, who feel the magnitude of the obligation we have spoken of to be so great, that nothing but some brilliant discovery can wipe it out. And then again, perhaps, there are some who think that Harvey, Hunter, Sydenham, and the like, all took that way to eminence, and that, therefore, it is the only respectable and orthodox route. Of course, there could be no exceptions taken to their choice, did they hold right bravely on with a steady heart and silent tongue until their goal was reached; but many, anticipating the crowns they long for, find a self-sufficient glory in merely kicking up the dust which the feet of their immortal predecessors trod upon. Of course no generous

mind begrudges them the straggling facts they glean where mighty reapers have gone before, but it is the thrusting of their puny sheaves into the face and eyes of everybody, and the Io-shout of triumph over their gatherings, that make the spectacle unpleasant. For one true-hearted, patient, modest, earnest toiler, such as Science, were she a living Goddess, would grow kind to look upon, there are twenty of these medical babblers in the land.

To place this matter of discovery in its proper light, the true distinction between those that are observational and those that are rational—between discoveries of facts and discoveries of principles—should be held in mind. A proper education of the senses may achieve the first, but the second demands the sturdy exercise of reason and all the higher faculties of mind. He who succeeds in the first is the finder merely; in the second, the true discoverer. If, in emulation so pure, and brotherly, and titleless as is supposed to actuate both these classes, there could be conceived some outward insignia to mark the relative rank of each, we think the higher order should be worn, not by him who finds, but by him who discovers. "But," as our author says, "those who seek for facts alone have ever made the greatest parade respecting their investigations; and this, too, generally, whether they lead to any positive result or not. So that now-a-days it seems to be by some accounted a greater glory to be said to be engaged in original investigations, though they never report a new fact discovered, than to have actually discovered a new law in science."

As if one should hear a "finder" say to a fellow-"seeker," "Have you seen 'A's new work on Physiology, or B's new work on Pathology?' If not, don't waste your valuable time. I've looked them over. There's nothing in them—nothing in them. Some visionary talk, perhaps, about the diastaltic functions of the spinal cord—some theorizing about the intimate relations between sthenic disease and the process of nutrition, but positively there are no new facts given—not a single new observation made—why, even the illustrations of the works are old!" And then, as if he would "do" his listener "proud," he hands him over the proof-sheets of some "original investigations," in which, by the repetition of twelve vivisections, he has found the fact enunciated, by some distinguished experimenter, that albuminose in solution in gastric juice interferes with the operation of Trommer's test for grape-sugar, to be strictly true; or perhaps he tells him that from a beautiful series of observations upon 100 cases of persons in the last stage of phthisis, the average of the pulse at 6 A. M. was 115,

at 9 A. M. 117, at 12 M. and 3 P. M. 119, and at 6 P. M., singular to relate, 123 in the minute.

Now, in these *tempora dura* what we want *is* not facts, as Dickens writes it, so much as men whose philosophic and gifted minds, brooding over the chaotic masses of this material that now impede our progress, shall educe for higher equations the living principle that runs through them. Ho! for these "coming men."

Did space permit, we would gladly extract entire the criticism of our author, which crushes off, *à l'écraseur*, the morbid outgrowth of meaning attached in many minds to the terms "original investigation" and "originality;" but as it is, we can only give his following catholic conclusions.

"A truly original scientific work is one in which original investigations, ideas, or principles, or all these together, predominate. Tested thus, it is true that original works are very rare. There is much writing, with comparatively little new matter. Most that is done is 'vertiginous, or in the way of perpetual rotation;'* and most authors who profess the most originality, fill their works with egotism instead. But original works, as just defined, are by no means indispensable to the advancement of science; while *new* works are so, in order to incorporate into it, in a permanent form, the new facts and truths which are successively ascertained. On the other hand, also, an original work, like original investigations, as has been shown, may be entirely barren and useless. The question, then, suggested by the announcement of each new scientific work should be, not 'is it original?' but 'is it truly useful?' *i. e.*, will it conduce more than its predecessors to the advancement of science?"

The second method in which our science may be indirectly advanced, is by our encouragement of the labors of others. The thousand ways in which this may be done need not be specified. The tact and kind consideration of every generous heart will either find or invent them. At least, if we be not encouragers, we should not be discouragers; for of all the lighter grotesque forms of mental disease, that magnificent blindness that will not see another's merit while it is another's, is most pitiable, because self-imposed, and so mean.

We part with our author at his closing inculcation to the Fellows of the Academy, to remember that they were men, and that they were brothers—which simple, but expressive words, whoever recollects the internecine conflict that followed hard upon their utterance, must think the gentle—fellows very soon forgot.

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* De Augmentis, p. 1.

We should be glad to see this address widely disseminated. There are, we know, some thin minds in which, as in heartless soil, nothing comprehensive ever grows; but there are others, like rich, deep, mellow fields, that palpitate beneath the sun. In such as these the thoughts of this address like seeds would germinate and grow, and in due season, give back to science the increase of a hundred-fold.

J. V. L.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by George Ripley and Charles A. Dana. Volume VII. Edward—Fueros. New York: D. Appleton & Co. 1859. Pp. 786.

The receipt of each volume of this Cyclopædia, as it comes from the press, is hailed by a large number of students with pleasure. The general character for accuracy exhibited in its predecessors is retained by the seventh volume, and bids us believe that the editors are striving to make their work as free from errors as possible. We have found the volumes already published so convenient for reference, that we await the appearance of the whole work with much anxiety. Our medical brethren whose professional duties prevent them from making extensive forays into other departments of study, will find this Cyclopædia a very valuable aid in their private studies. L. H. S.

EDITORIAL AND MISCELLANEOUS.

— The Academy of Medicine have again been at work, and the whole profession, and most of the unprofessional public, are amused thereby. Yellow fever was the topic—fomites, contagion, infection, were the words bandied about—now explained with all the elaborateness of half a dozen dictionaries—now with all the sharpness of a slashing editor—again with the gravity of the venerable practitioner, and more than once with the authority of the professor and writer. Some of the speakers appear to have thought that the whole world awaited in breathless suspense to hear what would be the vote of the Academy on the resolutions before them, while others knew only too well that they were making themselves ridiculous.

The whole matter can be stated very briefly. A resolution adopted

by the Quarantine Convention, at its last session, maintaining that "*personal* quarantine of cases of yellow fever may be safely abolished, provided that *fomites* of every kind be rigidly restricted," was offered for the endorsement of the Academy. That endorsement was urged by Drs. Griscom, A. H. Stevens, and others, (the first having made an elaborate argument upon it,) and opposed by Drs. Reese, Francis, Mott, and others.

Into these arguments we do not think it necessary to enter, or to follow the sophistries which were advanced as truths. The discussion has ended, as it ought to have done without so much talk, by laying the matter upon the table, where, we trust, it will always remain.

The fact is, that yellow fever is sometimes, in the latitude of New York, communicated from the sick to the attendants, or to persons in the vicinity. Whatever theory about fomites, or peculiar conditions of the air, or nidus, or electric, or telluric influences may be broached, the public knows that the disease does sometimes produce great ravages, and that the only thing that will prevent its spreading, though that sometimes fails, is quarantine. It is not strange, then, that they laugh at this hair-splitting of theorists. In every profession there is a tendency in those learned in it to occupy themselves with questions which have been long settled by the decisions of common sense, or else are of no importance practically. This question of yellow fever, as argued before the Academy, is of this class, and we regret that its effect must be to injure the Academy, (only temporarily, we trust,) and to afford to the public another source of ridicule of the profession.

— To chronicle the opening of the medical schools of this city is all that our space will allow. The usual introductories have been delivered, and the professors are now hard at work, teaching those who have come to this city for their medical education. It is usual to say that the number of students is unusually large at this period of the session, but we do not know that this is the fact; we can say, however, that the efforts of the professors to give more thorough instruction is greater than ever before, and we trust their efforts will be crowned with success. In regard to introductions we have a word to say, and that is not of them, but to those who give them. An opportunity at the opening of the session of medical lectures, by the now classical introductory, is afforded to him who will accept of it, to set forth some new truth, enunciate a new doctrine, or substantiate an old one; to speak with emphasis upon some of the topics which have engaged the medical world during the past year, or attracted by its

popular bearing, the unprofessional public. An opportunity is offered to express *an opinion*, but it would seem that there is nothing new under the sun, for the same laudatory phrases are retailed, the same expressions of mutual admiration are indulged in, and the applauses come in at the same places. It is time that this was changed, and we would recommend for this purpose that some of the younger men in our hospital staffs and in our colleges should be called upon to start the new ball in motion. Let us hear from our younger brethren.

— We have received from Dr. C. F. Heywood, the local Secretary, the first three volumes of the New Sydenham Society's publications, consisting of *Diday on Infantile Syphilis, Gooch on some of the more important Diseases of Women and Children*, and *Selected Memoirs on Diphtheria*. These works, besides their intrinsic value, are handsomely printed, uniformly bound in good style, of a convenient size, and are such works as every physician desires to put in his library. The other volumes to constitute the remaining publications of the first year, are a work *On the Anatomy and Physiology of the Spinal Cord*, by Schrœder Van de Kolk; another *On the Medulla Oblongata, and on the Proximate Cause and Rational Treatment of Epilepsy*, by the same author: these two to be bound in one volume; and a work by Dr. Bright, entitled *Clinical Memoirs on Abdominal Tumors and Intumescence*, edited by Dr. Barlow.

The subscription price to this Society, insuring a copy of all these publications, is a guinea, equivalent to five dollars and twenty-five cents. Dr. C. F. Heywood, 66 West 20th Street, receives subscriptions.

— We learn that Scanzoni's work on Diseases of the Sexual Organs of Women is being translated into English by Dr. A. K. Gardner, of this city, and is announced for publication by R. De Witt.

A sketch of this distinguished obstetrician we gave in the August number of the Monthly.

— We have received from Messrs. Lindsay & Blakiston the *Physician's Visiting List, Diary, and Book of Engagements, for* 1860, which is so well known to the profession generally, that we need only announce its publication. There is no material alteration from the arrangement of last year, which, for its simplicity and adaptedness to the every-day wants of the practitioner, commends the book to all.

— W. A. Townsend & Co., of this city, send us the *Physician's Hand-Book of Practice for* 1860. This is another pocket volume,

something similar in external form to that last noticed, but internally arranged in a more complex and complete manner. Besides the visiting list, it contains a brief compendium of practice, a list of poisons and antidotes, tables of weights and measures, of baths, of remedies, and an obstetric calendar, newly, and, so far as we can judge, usefully arranged.

— *Comparative Medical Educational Advantages of London and New York.*—J. J. Chisolm, M.D., Professor of Surgery in the Medical College of South Carolina, has been visiting the European hospitals, and from London he writes to the *Charleston Medical Journal and Review*. "As regards general medicine and surgery," he says, "we find that we are quite as advanced as the English, and that they have very little to teach us." "New York already offers every inducement which London possesses, with the additional advantage of being much nearer home, with much less expensive living. New York hospitals are just as well endowed, contents as varied and as interesting, and officials much more communicative and willing to give information. The medical colleges in London are very numerous, but the classes are small when compared to those of New York, if I may judge from the numbers I saw attending the leading men of the day."

That this is true, no unbiased man will deny, who has visited both cities. The educational resources of New York, accessible to the medical student, are not yet fully appreciated.

Persulphate of Iron as a Hæmostatic.—Monsel, of France, first proposed the use of this excellent hæmostatic, and as its use is becoming more general, we give our readers *his* process for its preparation.

"Place in a porcelain capsule 100 grammes of distilled water, and 10 grammes of sulphuric acid, raise the mixture to the boiling point, and then add 50 grammes of protosulphate of iron. After complete solution of the latter, pour, in small quantities, into the boiling liquid 16 grammes of nitric acid at 35°. When the rapid discharge of orange-colored vapors has ceased, add, in portions, 50 grammes of the protosulphate of iron, the solution of which will produce again reddish fumes, and will cause the excess of nitric acid to disappear. The volume of the liquid is then raised to 100 grammes, by the aid of distilled water, cooled and filtered."

Monsel suggests that 100 grammes of this solution be treated with a few grammes of linseed oil, and that the mixture be shaken three or four times in twelve hours. There is thus obtained a perfectly neutral solution, having no nitrous odor, and susceptible of preservation for

a very long time. The solution is limpid, of a very dark brownish-red, inodorous, and with an extremely astringent, but non-caustic taste. It marks 45° of the *pèse-sels*. When concentrated by boiling, it assumes the consistence of honey, and if, in that condition, it is spread in thin layers on plates of glass, and dried at a temperature of about 100° Fahrenheit, it can be obtained in reddish-yellow scales, transparent, like those of the citrate and tartrate of iron.—*Journ. de Phar. et de Chim.*

A new Cavity, called by its discoverer "preperitoneal," has been announced by M. Retzius. It has hitherto, he says, escaped the observation of anatomists. In examining the disposition of the transverse muscles and their aponeuroses, he found this circumscribed cavity, which serves to facilitate the play, distention, and contraction of the bladder.

Dr. Compérat has got a cure for ascarides, which has never failed in his hands. It is a simple injection of water, containing five, ten, fifteen, or twenty drops of sulphuric ether, according to the age of the individual, and repeated more or less frequently, according to the number of the animals present. This agent, he says, has a double advantage. By its subtility it readily enters into and destroys the larva; and by its antispasmodic powers it allays the spasmodic and nervous symptoms produced by the animals.

Books and Pamphlets Received.

Pathological and Practical Observations on Diseases of the Alimentary Canal, Œsophagus, Stomach, Cœcum, and Intestines. By S. O. Habershon, M.D., &c. Philadelphia: Blanchard & Lea. 1859.

A Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart. By Austin Flint, M.D., &c. Philadelphia: Blanchard & Lea. 1859.

An Introduction to Practical Pharmacy; designed as a Text-Book for the Student, and as a Guide for the Physician and Pharmaceutist, with many Formulas and Prescriptions. By Edward Parish, M.D., &c. Second Edition, greatly enlarged and improved; 246 illustrations. Philadelphia: Blanchard & Lea. 1859.

A Treatise on Syphilis in New-Born Children and Infants at the Breast. By P. Diday, M.D., &c.; translated by G. Whitley, M.D. The New Sydenham Society, London. 1859.

Gooch on some of the more Important Diseases peculiar to Women; with other Papers. Prefatory Essay by Robert Ferguson, M.D., &c. The New Sydenham Society, London. 1859.

Memoirs on Diphtheria. From the writings of Bretonneau, Guersant, Trousseau, Bouchut, Empis, and Daviot. Selected and translated by Robert Hunter Semple, M.D. With a Bibliographical Appendix, by John Chatto. The New Sydenham Society, London. 1859.

Lectures on Surgical Pathology, delivered at the Royal College of Surgeons of England. By James Paget, F.R.S., &c. Second American Edition. Philadelphia: Lindsay & Blakiston. 1859.

The Treatment of Lateral Curvature of the Spine, by Specific Exercises. By Charles F. Taylor, M.D. New York.

Transactions of the New Hampshire Medical Society, Sixty-ninth Anniversary. Held at Concord, May 31st and June 1st, 1859. Manchester: 1859.

Address at the opening of the Medical Department of the University of the Pacific, at San Francisco. 1859.

THE AMERICAN

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ESSAYS, MONOGRAPHS, AND CASES.

A Monograph on Scarlet Fever. By EDWARD H. PARKER, M.D., late Professor of Anatomy and Physiology in the New York Medical College, &c., &c.

"Il n'est pas de maladie qui décontenance plus le médecin; il n'en est pas dans laquelle on soit plus sujet à tomber dans des erreurs de pronostic, et ces erreurs sont inévitables."

TROUSSEAU.

[Concluded from the November No]

I come now to speak of the treatment of scarlatina; and first, *of prophylaxis.* The first duty of the practitioner, when this disease makes its appearance in a family, is to guard those who never had it from any further exposure to its contagion. So long as there is any possibility that it may be conveyed by *fomites*, it is necessary to guard against them, as well as against direct communication with the patient. Seclusion of the invalid in a well-ventilated room is least apt to interfere with the usual routine of the family. To this room only his attendants should have access, and these, while avoiding as much as possible all intercourse with the rest of the household who have not had the disease, should take especial care not to caress the other children, nor to take them in their arms, even when it is necessary, until they have gone out of doors, and exposed their hair and clothes freely to the air. Washing the hands is also wise. The contagious influence seems to be easily destroyed in these ways, which indeed ought to be insisted upon, were there only a slight *possibility* that it could be thus removed. It is in those instances in which the first cases are mild,

that parents and servants are, with the greatest difficulty, induced to institute this rigid quarantine in the house; but because the first case is mild, we cannot presume that others will be so too, and these rigid rules should be firmly insisted upon.

Belladonna has acquired some reputation as a preventive of scarlatina. By some, its powers are insisted upon and praised; by others, they are denied and ridiculed. There can be no question that the fact of its having been introduced to the notice of the profession by Hahnemann has added to the prejudice with which it is received. Still, whatever effect this introduction ought to have had, it has been used by large numbers of physicians; and so much testimony* has been given in its favor, that there is no excuse for omitting its use. In my own experience, I have not been able to satisfy myself of its efficacy, being conscious of the many sources of fallacy which one has to avoid in establishing such a therapeutical fact. But my reasons for using it are:

1. If it has any protective power, those who have trusted themselves to my care ought to have the advantage of it.

2. It does no harm.

3. There is no more reliable or safe prophylactic.

4. It is often a great comfort to the parents or other friends of those who have been exposed to scarlatina, to feel that they are doing something to combat the inception of the disease, instead of idly awaiting its onslaught.

5. I thus protect myself from those harpies who are ever on the watch to bury their filthy talons in one's reputation, and who, if it were omitted, would not hesitate to say, if the disease spreads in the family, that it might have been prevented, had I not been careless, or ignorant of the use of this drug.

The most convenient formula for its use is—

℞.—Belladonnæ extracti, gra. iij.
Aquæ menth., f.℥j.

For an infant under one year of age, give three drops, twice a day; and for older children, add to each dose one drop for every year in their age above the first.

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* Thus, Bouchut, who favors its use, quotes, as agreeing with him, Schenk, Massius, Hufeland, Berndt, Meglin, Bayle, Godelle of Soissons, and Stevenard of Valenciennes. Bayle says (*Bibliothèque de Thérapeutique*) that, in an epidemic of scarlatina, out of 2,027 persons who took belladonna, only 79 were attacked by it. See, also, an interesting report on its use in the *Am. Journ. Med. Science*, by Dr. J. C. Morris, of Philadelphia.

Of the Treatment of Typical Cases.—It is to be remembered that scarlatina is in its nature a self-limited disease; that is, if this term be objected to, it has a certain rise, a fixed course, and an early and regular decline; so that, if not exaggerated or aggravated by some of the variations which have been enumerated, it terminates in recovery in from ten to fifteen days. It becomes evident, therefore, that, in those cases to which I have given the name of typical cases, the interference of active medication is not only unnecessary, but undesirable. A mild emetic will clear the stomach of undigested food, and is often thought to hasten the appearance of the eruption. If constipation is marked, and continues for thirty-six or forty-eight hours, a dose of syrup of rhubarb for a child, or of the tincture of the same drug for an adult, will move the bowels gently, and be all that is necessary. If diarrhœa comes on, as it often does at an early period, chalk mixture and catechu, with a little opium, may be used, in sufficient quantities to control it. For children paregoric is preferable to other opiates; but with adults either this or laudanum may be used, or the opium may be given separately, in the form of Dover's powder. As a febrifuge, either the sweet spirits of nitre, or spiritus mindereri, or tincture of aconite, can be used in appropriate doses. An occasional sponging of the surface of the body with tepid water, a little vinegar being added to it, if preferred, seems to moderate the excessive heat, and to allay, in good measure, the nervous irritability which arises from or accompanies it. It is of great importance that the room of the patient should be kept quiet, all visitors being excluded; well ventilated, provision being made for the direct access of fresh air at all seasons of the year, but of course not in such a way as to create draughts across the patient; and shaded, not absolutely dark, but with the glare of light excluded. The patient will thus be freed from much of the suffering from headache, which is one of the greatest annoyances.

The throat, in these cases, requires nothing more than a mild alum or capsicum gargle,* to be used three or four times a day; and the external irritation of a piece of flannel around the neck, the irritating power of which may be increased by occasional wetting with diluted rum, in which a little black pepper has been steeped. If the white pultaceous deposit is visible within the throat, it is well to wipe it off

* The domestic formula of a tea-spoonful of black pepper, a tea-spoonful of salt, a table-spoonful of vinegar, and a pint of hot water, is a very excellent one for a gargle.

with a soft sponge, or with soft linen, and immediately apply to the surface a solution of chloride of soda. If the patient makes a great deal of resistance to having the deposit removed, it is not best to excite him by forcing him to submit, but either to apply the solution without removing the membrane, or allow him to use it as a gargle, if he is old enough to do so. Mr. Fuller recommends a chlorine draught, which I have not had occasion to use, but which must be well adapted to many of these cases. His directions are, to "put 10 grains of chlorate of potash into a pint bottle, add to it half a drachm of hydrochloric acid, cork it lightly, and let it stand half an hour; then add by degrees a pint of water, shaking it well on every addition, to make the water absorb the gas, and add one ounce of syrup of orange-peel. The dose is a tea-spoonful, more or less, according to the age and condition of the patient."

As to the diet of the patient, little food will be required while the fever runs high. Light gruels and toast-water are all that will be relished, and more substantial food is apt to produce nausea. But when the fever has disappeared and desquamation has fairly commenced, the appetite returns, and soon becomes ravenous. Light and easily-digested food should be given in moderate quantities, and this limit should not be passed, though the patient does beg for more. I have seen even adults beseech their friends with tears to satisfy their cravings; and it is necessary to impress upon those having charge of convalescent patients that danger is imminent, if strict attention is not given to regulating the diet. During the continuance of the fever, cool drinks, slightly acidulated with lemons or tamarinds, or other sour fruit, are very grateful to the patient, and may be given with freedom. The greatest luxury in which he can be indulged is ice, especially when the throat is quite painful, and it may be given liberally; though it should be in small pieces, not in large ones. It soothes the irritation of the throat, and lessens the source of constriction, which is sometimes very annoying.

Of the Treatment of Cases varying from the Typical.—The variations in the eruption do not require any treatment for themselves. Absence of the eruption is not a sufficient reason for resorting to very active measures to "bring it out." The physician should give careful attention to the condition of the urine, to the state of the nervous system, and of the throat, that he may be certain that there is no grave symptom in either of these directions. The immoderate use of hot teas, of steam baths, and of alcoholic drinks, do not seem to be called for, and they may add to the danger.

When the eruption, after being well out, suddenly disappears, careful inquiry should be made for the cause, and unusual diligence should be used in ascertaining the condition of the internal organs. The reason for this is not that the repelled eruption is likely to attack these organs, but because the occasion of its sudden disappearance is exposure to cold, which it is probable may have excited at the same time some inflammation, as of the lungs or pleura, or peritoneum, which is liable to be overlooked. The distinction between this view of repelled eruptions and the popular one is highly important.

The sienna shade of the eruption does not require treatment in itself, but is of importance as showing that there is a depressed condition of the vital powers, and that it will probably be necessary to contend with some of the grave complications which arise in that state, as diphtheritis and nervous exhaustion. The diffusible stimulants, especially carbonate of ammonia, are to be used, attention being given to their effect upon the pulse, which ought to grow fuller and less frequent; and to the eruption, which ought to assume its more appropriate scarlet color. I repeat, that this shade of the eruption is an indication of importance only when noticed in the early stages, and not when the disease is abating.

When the variation is in the condition of the throat, the treatment is to be modified according to its character. If it be simply the formation of one or more ulcers upon the tonsils, the ulcerated surface should be wiped clean, and then touched with a solution of the *crystallized* nitrate of silver, containing from a scruple to a drachm of the salt to an ounce of water. A camel's-hair pencil or a sponge probang is the most convenient instrument to use in applying it.

If the variation consists in the attack of diphtheritis, the physician must be on the alert to detect the earliest symptoms of danger in the various directions in which it may be expected. But he must often be content to see his efforts fail to preserve the life of the patient, or even to defend any particular organ from destruction, however wise and skillful those efforts may be.

When the patient is extremely prostrated by the diphtheritis, it is necessary to resort at once to stimulants and food; the latter being given by injection, if, in consequence of the soreness of the throat, the patient is not willing to swallow it. To that given by the mouth a liberal quantity of pepper may be be added, both for its effect upon the throat locally, and the stimulating properties which it possesses. A pulse of increased but irregular frequence, and diminished strength and volume, are indicative of this prostration.

To the throat there should be applied, externally, some gently stimulating oil, as oil of origanum, diluted one half with sweet oil, and a light bag of hops, thoroughly heated, and applied dry. My own experience leads me to prefer this to wet applications, as flannels wrung out of hot water,* which are great favorites with many; or to greasy pieces of the rind of pork, an application which I have frequently seen in use, but never could find that it did any good. Poultices are entirely out of the question.

Internally, the pharynx, and all the parts on which the diphtheritic membrane is apparent, should be touched with a solution of the crystallized nitrate of silver, (℈j. to ℥j. to ℥j. of water,) which is *not* a caustic; or with chloride of soda, (Labarraque's solution,) which is especially useful when there is any fœtor; or with hydrochloric acid. Prof. Trousseau gives a decided preference to the acid, but he says of its use, "this caustic is to be used with great prudence and precaution. In children, during the struggle to overcome their resistance, you may burn the tongue, the teeth, the internal walls of the mouth, and thus increase the evil, without cauterizing as it should be done. By holding the child properly, and opening his mouth by means of a spatula, you can sometimes obtain good results from these cauterizations, touching the diseased parts, twice a day for five or six days, with a camel's-hair pencil saturated in the acid." My preference is for the chloride of soda, the portion of it which is swallowed being beneficial rather than otherwise. Once or twice a day is usually sufficiently frequent to apply it.

But it is desirable to treat not only those parts of the pharynx which are in view, or may in any way be seen, but also those parts which are out of sight. The wall of the pharynx, which is concealed by the *velum palati*, is most directly reached by the sponge probang, passed up behind the velum. Not unfrequently, however, it is impossible to open the patient's mouth wide enough to do this, and in that case it is necessary to resort to injections through the nares, or to the use of powders, blown in through the same orifices. The powders used for this purpose are of tannin or of alum. To apply them, put the proper quantity in a tube, (a quill answers a pretty good purpose,) pass it along the floor of the nares to the fauces, and then blow the powder out, when it will of course spread itself upon the neighboring moist surfaces. Powders may be applied in the same way through the mouth. But injections are much better than the powders. The

* Dr. Morris recommends the spongio-piline, which I should think might be the most agreeable of the *wet* applications.

syringe used should have a long pipe,* which is to be passed along the floor of the nares, and the fluid thrown into the pharynx, and not upward among the turbinated bones, unless the disease has extended to that surface. It is necessary to use for the injection substances which may be swallowed, and I therefore prefer the chloride of soda, though both tannin and alum, dissolved in water or glycerine, may be used. Dr. Clarke, in the paper before referred to, points out the importance of these injections for keeping open the Eustachian tube, the orifice of which, it will be at once seen, can be thus reached, and cleared by the current flowing over it. Simple water should be thrown in before using medicated injections, in order that the surfaces may be as well cleansed as possible, before any attempt is made to apply the remedy to them.

The treatment of the lesions of the ear, connected as they are with the throat affection, should be spoken of here. I cannot do better than to make free use of Dr. Clarke's paper, taking leave, at the same time, to suggest that it touches upon points too much neglected by the profession generally. Dr. C. says:

"The practitioner who has charge of scarlatina, measles, &c., should be on the lookout for the slightest otorrhœa or otalgia. The nurse, or other attendant, should be directed to watch the ears carefully, and to report to the physician the first sign of moisture about the orifices of the meatus. In like manner, any complaint of earache should be watched for, and reported, and the occurrence of one or both of these symptoms should be the signal for a careful inspection of the ears. It is not difficult to examine them, nor to recognize the existence of a morbid condition in them. The services of a specialist are no more necessary to do this than they are to recognize the existence of a pneumonia, or of a congested os uteri. By means of a speculum auris, and a good light, the condition of the meatus and of the membrana tympani can, in most cases, be satisfactorily ascertained. When a sunlight cannot be obtained, or the patient is too sick to be placed in a position which will enable the sun's rays (aided by a common mirror, used as a reflector,) to enter the meatus, an artificial light can be advantageously substituted; a lamp with a common reflector attached, which can be held so as to throw a strong light upon the patient's ear, will answer the purpose just as well as any of the expensive and complex lamps for the ear which have been invented, and a great deal better than most of them.

"It is not to be denied that there are many cases which do not

* The best syringes for this purpose are made of vulcanized india rubber.

admit of an examination when the ear is first attacked. The patient may be too sick to allow of its being done. The sides of the throat and face may be so swollen as to nearly close the orifice of the meatus, and prevent any exploration; or the meatus itself may be tumefied, and tender, so as to forbid the necessary manipulations. But after making due allowance for all such cases, there remains a large number, doubtless a majority, in which an examination could be easily made, if the attending physician only felt the necessity of making it. Moreover, it is not generally the case that such an examination is demanded at the time when the constitutional disease is at its height. I have no statistical data by which to decide this point, but my impression, so far as I can recall the cases which have come under my observation, is, that in a large proportion of the cases of perforation following the exanthemata, the local affection does not begin till the acute stage of the constitutional disease has passed; and more than this, the local affection frequently does not appear till convalescence from the constitutional one is fully established. After the general affection has subsided, an exploration of the ear can always be readily made, and the extent of the local disease ascertained." * * * "The indications for treatment are:

"1st. To avert perforation by subduing local inflammation, altering the local morbid action, and keeping the Eustachian tube, and especially its pharyngeal orifice, open, so that all unhealthy secretions may find an easy egress out of the middle ear into the throat.

"2d. If perforation must take place, to make an artificial opening through the membrana tympani, for the discharge of whatever may be pent up in the cavity of the tympanum.

"3d. After perforation has taken place, whether artificially or spontaneously, to employ *immediately* all general and local means to bring about a healthy action of the middle ear.

"4th. To induce healing of the perforation, when this can be done, and thereby restore the membrane to its integrity."

The remaining important variation from typical cases is that in which the nervous system is the centre of attack, and the direction in which the scarlatinal poison seems especially to exert its energy. From the cases which I have quoted, it is evident that in many cases death is the speedy result of this attack, and that there is little opportunity to accomplish anything by treatment. Even when time is afforded for medication, it is in the majority of cases unsuccessful, for these cases are especially malignant and fatal.

Carbonate of ammonia as a stimulant, musk, castor, and camphor as

nervines, to quiet the tossing, jactitation, and subsultus tendinum, are the drugs which are demanded; few, if any, others finding a place for themselves. Wine whey, or brandy even, is often desirable to alternate with the ammonia, and this notwithstanding the heat of the skin. To the back of the neck a blister may be applied when coma approaches, though I must confess that I have rarely seen any benefit arising from the practice. The only remedy which is of much effect, and this often fails, is the application of water, either cold or warm, by *affusion*. This is Currie's suggestion, but it has fallen into neglect and oblivion, which it has not deserved. To reawaken the profession to its value, the endorsement of a distinguished name is necessary. For this reason, as well as that my own experience with it has been limited, I quote again from the learned Trousseau.

"How should this treatment be applied? The patient placed naked in an empty bath-tub; three or four pails of water, at a temperature of 20° Centigrade, (68° Fahrenheit,) are thrown over his body. This affusion lasts from a quarter of a minute to a minute at the longest. The patient is immediately enveloped in blankets, placed in bed without being wiped off, and properly covered; reaction generally follows in fifteen or twenty minutes. The affusions are repeated once or twice in the twenty-four hours, according to the severity of the symptoms. They should be administered at that moment when the nervous phenomena assume such an intensity as to excite our fears of imminent danger; they are to be repeated until these symptoms cease, relieving the mind of the physician from further cause of alarm.

"To suggest in private practice a treatment apparently so bold, one would need to have grown old in practice, to be beyond the necessity of being sustained by public opinion. He should be fortified by a deep sense of duty—by a consciousness of doing well, in order to strive successfully against the popular prejudice—of all prejudices, perhaps the most unfortunate—which demands that, in eruptive fevers, patients should have warm drinks, and be wrapped in more coverings than they are accustomed to in health. There is no prejudice, we say, which is more unfortunate than this; there is none which more frequently occasions the death of the patient. Yet the voice of Sydenham, which has spoken for two hundred years—the authority of the most distinguished physicians who still object to it, resist in vain.

"You understand, then, the difficulties which the young physician will have to encounter, who believes he should have recourse to these cold affusions. These difficulties are the greater, because it is in the severe cases, where the scarlatina threatens to be fatal, that the indi-

cations of this treatment are found. In adopting this treatment, you know that the disease gives one chance of recovery to two of death; and you can foresee, if you are not successful, what will be the opinion of the family afflicted with the loss they have sustained.

"I have employed these affusions for a long time. I tried them in private practice before adopting them in hospital practice, for I have never made use of anything there which I had not previously tried in my private practice. As to these cold affusions, I can assure you that I have never used them without gaining some beneficial effect from them. I do not pretend to say that all my patients were cured. Far from it. I have lost a great many, but they died notwithstanding the treatment. The affusions, instead of being injurious, seemed to moderate the symptoms and retard the fatal termination. By acting in this way in private practice, my reputation ran great risks, and I have often been badly recompensed for doing what my profound convictions dictated; but I remained firm in my course which duty marked out for me, and I persist in it up to this hour, for a stronger reason than formerly; for now, my position being established, my responsibility does not influence me as much. I understand your fears—not that you doubt the advantages of the treatment, which you dare not adopt, but because, while consulting before all the interest of the sick intrusted to your care, you yet have to watch over your own reputation, which is so easily affected at the commencement of your career as practitioners. Still, when the voice of duty speaks to you, when your conscience tells you that this treatment, you dare not adopt because it is contrary to the prejudices of the world, is a useful treatment, it is still necessary to try it, it is right that you should do it. But then, instead of resisting this prejudice face to face, instead of taking the bull by the horns—if you will pardon me this vulgar expression—avoid the difficulty, by administering these useful cold affusions, leaving the patient, and especially the attendants, in the belief that the affusions are warm."

It remains to speak of the treatment of the sequelæ of scarlatina. With one exception, these can be dismissed by saying that they require the treatment which is demanded by the same diseases under other circumstances, modified by the condition in which the patient finds himself. No one should think of treating the pleurisy, pericarditis, or peritonitis of such patients by copious venesection, violent purgation, or other extremely active medication. A less heroic course produces very great effect, and too much energy of treatment is likely to prove fatal to the patient. Moderate leeching, cupping, or blistering, to-

gether with mild purgatives and alteratives, will be sufficient in a majority of cases. Accumulation of fluids in any of the serous cavities requires prompt attention, for the exhausted life-powers do not readily adapt themselves to bear this new burden. If diuretics will accomplish this, it is well; but where these fail, it may be necessary to resort at an early period to surgical aids. This is especially true of pleuritic effusions, which should be early removed by thoracentesis, if there are no marked signs of improvement.

The exception above made is in favor of anasarca, which requires active as well as prompt treatment. It has been said that this more frequently follows mild than severe cases of scarlatina, and it may be for this reason that active medication is better borne. Be that as it may, it is desirable to give at once a decided cathartic of calomel and rhubarb, followed by a dose of magnesia, to dry cup over the kidneys, (or if there is marked hæmaturia, wet cups should be used,) and in general to combat the acute nephritis. When this is allayed, the use of diuretics may be commenced; those being selected which do not contain elements which irritate the urinary organs. Digitalis and the nitrate of potash are therefore preferable to the class which may be represented by the juniper.

The general principles for the treatment of anasarca must, then, be our guides, and these it is not here necessary to recapitulate.

It will be observed that I have abstained from mentioning the classical divisions usually observed in treating of scarlatina; viz., S. simplex, S. anginosa, and S. maligna. I have done so because confusion frequently grows out of these divisions, and there is no advantage in them. The scarlatina is the same, whether there be a profuse eruption or none at all; whether diphtheritis complicates it or not; whether rheumatism or anasarca follows it, or recovery takes place without any sequela. There is, then, no reason for encumbering our books and our minds with these subdivisions, and I have observed their ill effects upon practitioners as well as students.

Many remedies of reputation have also been passed by in silence, either because they have ordinarily failed in my own hands, as well as in those of my professional acquaintances; or because, when I have not used them, I have judged that the evidence in their favor is insufficient to command my confidence. Of the latter class, the use of belladonna as a *remedy* (I have given my reasons for using it as a prophylactic) is one example; and the "successful treatment of scarlatina" by quinine is another. Of the former class, yeast given internally, and bacon-fat used externally, are illustrations. Both of these

remedies have been carefully and conscientiously used by me; and both have uniformly failed when put to the test of severe cases. The greasing over the surface with bacon-fat is a very filthy performance, and as great relief, I may even say greater, has, in my experience, been found by the frequent sponging with tepid water and vinegar. The yeast has been given with all the favor of prejudice in its behalf, but I am compelled to say that, in any case sufficiently grave to excite apprehensions in my mind as to the result, it has never been of any benefit to my patient.

It has been my fortune to contend with several severe epidemics of the graver forms of this disease, and to have had patients in families which have always appeared to be particularly susceptible to the deleterious influences of the scarlatinal poison, and I know that those who have been more fortunate in the epidemics which have occurred in their circles of practice, are not qualified to speak of the value of remedies, or to estimate the gravity of this disease as compared with others. To any one who may doubt my statement, and quote to me the opinion of Sydenham, that scarlatina scarcely deserves the name of a disease, I would oppose the experience of M. Bretonneau, as narrated by Trousseau in the admirable lecture to which I have so often referred.

"When I commenced my medical studies at Tours, M. Bretonneau told us that scarlatina, which his masters had always spoken of as a severe disease, had at first appeared to him as a very mild disease. He said that, from 1799 to 1822, at which time he made these remarks, he did not recollect to have seen a single person die of scarlatina, and he practiced for a long time in the country before he became physician-in-chief of the hospital at Tours. Since then he had seen numerous cases, both in hospital and private practice, and up to that time this exenthematous pyrexia was to him the mildest of all. But in 1824 an epidemic broke out in Tours and its vicinity. In less than two months, M. Bretonneau saw the sick die off with such a startling rapidity, that, opposed as he was to the doctrines of Broussais, then in high estimation, he blamed the treatment pursued by his confrères, who bled excessively, in order to moderate the angina and the inflammatory fever at the commencement of the attack; soon, coming himself in contact with the disease, he learned that he could not always strive against it successfully, a considerable number of his patients succumbing. Then, he who before 1824 had treated scarlatina so lightly, learned to class it with the plague, with typhus and cholera."

The Pathology and Treatment of Cardiac Disease. By Bernard Kelly, M.D., Physician to the New York Dispensary.

Disease more frequently attacks the left chambers of the heart than those of the right, particularly among the young; as we advance in life, however, the reverse obtains, valvular disease of the right side being more common, as a primary affection, than that of the left. The most usual forms of endocardiac disease we meet with are: *insufficiency* of the valves; *contraction of the orifices*, with or without insufficiency; and *pediculated*, *adventitious*, and *atheromatous* growths and deposits, adhering to the valves, and obstructing more or less completely the cardiac orifices, according to the different degrees of magnitude which they may have attained, or the particular location they may occupy. Each of these forms may be situated in the several openings, but more generally in those of the left side. Disease, involving the sigmoid valves of the pulmonary artery, is very rare. This is owing in part to the unstimulating quality of the venous blood, the carbonic acid which it holds in solution calming irritation by its anæsthetic action; and partly to their facile function, requiring, as it does, very little effort to prevent the blood regurgitating into the ventricle.

The most common cause of valvular disease is endocarditis. This may be primary, that is, may affect the endocardium idiopathically; it is, however, more frequently the result of other diseases, such as acute articular rheumatism, gout, syphilis, and perhaps, occasionally, from the abuse of mercury, (the well-known symptom of *erethismus* often attending the injudicious employment of that agent.) The disease, when it depends upon gout and rheumatism, is called *metastatic*. We do not treat here of *cyanosis*, the result of permanent patency of the interauricular or interventricular orifices; this condition being rather a fault of the progressive development of the organization, than a veritable disease. Endocarditis frequently accompanies inflammations of the pleuræ and lungs; also, typhus, small-pox, and other eruptive fevers. Whether it be the consequence of these affections, or merely produced by the causes which excite them, is difficult to determine. We know that the blood, in the diseases mentioned, is highly charged with fibrin, stimulating and inflammatory; it would not at all, then, seem repugnant to admit that so delicate a membrane as the endocardium, bathed continually in the normal state of things by a bland, unirritating liquid, so highly susceptible of being influenced by agents injurious or foreign to the economy, should take on diseased action

from the inflammatory condition of the blood alone. It is no doubt in this way that the disease with which we are engaged is so frequently seen in persons addicted to the intemperate use of alcoholic liquors, which are promptly absorbed, carried along in the torrent of the circulation, enter the chambers of the heart, and then produce those deplorable ravages which embitter the existence of the unhappy sufferer, and infallibly mark him out as the victim of an early grave. It is no doubt in this way, too, that the abuse of mercury occasionally produces the disease; for we know that this substance is readily absorbed, and doubtless equally capable of irritating, and finally inflaming, the lining membrane of the heart, as any of the agents already mentioned.

Before speaking of the symptoms of the various forms of *valvular disease*, it may not be inappropriate to note a few of the more prominent ones of its almost universal forerunner—endocarditis.

This affection, in its early, acute stage, is readily recognized by an examination of the heart and precordial region. The action of the organ is increased in force; its pulsations augmented in number; they are very peculiar in character; so much so, indeed, as to be denominated, by Bouillaud, *acute palpitations;* they strike loudly and sharply beneath the ear; a vibratory movement is distinctly felt in the precordial region by the cheek of the auscultator, or on applying the hand to it. The healthy sounds of the heart are changed or modified. We get, on auscultation, a *bruit de souffle*, or a *bruit de râpe*, varying in intensity and distinctness with the greater or less violent pulsations of the heart, or according to the ravages which the disease has already made. A *metallic tinkling* is also not unfrequently heard accompanying the ventricular contraction. Percussion gives a larger field of dullness than is usually met with in the healthy state. This is owing to the tumefaction of the heart when not complicated with a pleurisy, or pericarditis. The bellows and rasping sounds, together with the greater distinctness of the cardiac pulsations, serve to distinguish endocarditis from inflammation affecting the pericardium. The dullness and bulging of the precordial region are common to both diseases, but more extensive and better marked in pericarditis. Pain is by no means a common symptom of endocarditis; on the contrary, it scarcely ever manifests itself when the disease is simple and uncomplicated. The patient generally experiences feelings of uneasiness, anxiety, and oppression about the region of the heart; there is great dyspnœa and apprehension, with a tendency to faintness and syncope. The pulse is

rapid, remarkably small, intermittent, and irregular. This curious discrepancy between the feeble state of the pulse, and the violent, energetic action of the heart, is generally attributed to the collection of fibrinous concretions in the left ventricle, greatly diminishing its normal capacity, and consequently the volume of blood destined to traverse it in a healthy state. The thickened and altered condition of the valves, the contraction of the aortic orifice, contribute, to some extent, in producing the almost impalpable pulse. When the obstruction to the circulation is very considerable, congestion of the lungs and brain supervenes; the countenance is tumefied and purple, and sometimes the patient exhibits all the usual symptoms of apoplexy, such as sudden loss of sensation and voluntary motion, stertorous breathing, frothing at the mouth, and convulsions. In similar cases the lower extremities become œdematous. There is abundant mucous or bloody expectoration. The orthopnœa is well marked; the wretched sufferer being constantly harassed by the fear of impending suffocation.

Such are the prominent symptoms of the gravest form of acute endocarditis; the disease sometimes passes into the chronic state, which produces lesions of the structure it invades, to be accompanied or followed by phenomena of another order. The structural changes which are wrought by this form are chiefly confined to the valves and cardiac orifices. Induration and thickening of the substance of the valves; vegetations springing from the latter, or attached to the lining membrane of the heart; adherence of the valves, and constriction of the orifices, false membranes, fibrous, cartilaginous, osseous, or calcareous formations—such are the *anatomical characters* presented by the chronic form of the disease. Although atheromatous and calcareous deposits are very commonly attributed to endocarditis alone, they are, on the contrary, rarely the result of that disease, but are generally produced as a necessary consequence of the modifications of nutrition which the heart, as well as all other tissues of slight vascularity, undergo from old age. They are also very frequently met with in the hearts and principal arteries of confirmed drunkards. In such cases it is difficult to account for their true mode of formation: whether due to continual irritation, or to changes wrought in the physiological constitution of the blood—in all probability to both.

The symptoms of valvular disease of the pulmonary artery will vary with its degree and form. Thus, for instance, should there be merely constriction of the orifice, we get a *bruit de souffle*, more or less intense

during the ventricular systole. This is heard most distinctly towards the junction of the second and third ribs with the sternum. If there be valvular insufficiency at the same time with contraction, the *bruit* exists during the first and second sounds. If insufficiency of the pulmonary valves alone presents itself, the valves remaining in a normal condition, the bellows murmur, or that of regurgitation, is heard during the ventricular diastole—the pulmonary second-sound in this case is entirely wanting. It is very difficult to distinguish pure constriction of the orifice of the pulmonary artery from vegetations affecting the same or its valves. It is distinguished from contraction of the right auriculo-ventricular opening, by the murmur attending the latter being heard most audibly at the right apex, extending behind the sternum, at the point where the cartilages of the fourth ribs join that bone, and synchronous with the ventricular diastole, or second-sound; from contraction of the aortic orifice, by the *bruit* accompanying the latter being louder, more prolonged, and heard over a greater extent of surface; the latter, too, is infinitely more common. The state of the pulse is also an excellent guide to enable us to discriminate between both affections. When the orifice of the pulmonary artery alone is constricted, the pulse of the individual preserves its usual force, fullness, and regularity; whereas, when the aortic opening is diminished in calibre, the pulse is remarkably small, miserable, frequently intermittent and irregular.

The auriculo-ventricular orifice of the right side is more frequently affected by disease than that of the pulmonary artery. There may be either constriction from chronic inflammation, or obstruction from vegetations situated in the opening, or attached to its valves, or the valves themselves may be thickened and bound down by false membranous bands, or all these different forms may present themselves simultaneously.

The symptoms revealed to us, both physically and rationally, are as follows: In simple *contraction* of the right auriculo-ventricular orifice, a form, like the antecedent, exceedingly rare, and consequently very seldom met with, a diastolic murmur heard behind the centre of the sternum, about the point where the cartilages of the fourth ribs articulate with it, and extending to the right apex. In the obstructive form, from vegetations, which is yet rare, but still more common than the preceding, the murmur, heard at the same point, and extending in the same direction, is more intense, and may present the *bellows* or *filing* characters; in both cases there is dilated auricular hypertrophy.

Tricuspid insufficiency from thickening of the valves, or the latter being bound down by false membranous adhesions, the orifice remaining in a healthy, normal condition, gives a systolic murmur heard at the right apex, and extending to the sternum, the point corresponding to the articulation of the cartilage of the fourth rib. If *contraction* of the orifice and *valvular insufficiency* exist simultaneously, the regurgitant and obstructive murmurs will be heard over the same space successively, synchronous with the first and second sounds, whose distinctness they will tend more or less to mask and modify. In the regurgitant form, or that resulting from tricuspid insufficiency, there is often manifest pulsation, and distention of the external jugulars; the right ventricle, as well as its corresponding auricle, are dilated and hypertrophied; there is congestion (as in all the forms of tricuspid disease) of the venous system throughout, with anasarca. In grave cases this congestion may induce cerebral apoplexy. The breathing is usually slow and cautious, the lungs not receiving their full supply of blood till after several ventricular contractions; there is neither cough, dyspnœa, mucous nor bloody expectoration, at the beginning; it is only when the disease has existed a considerable time that symptoms of pulmonary congestion manifest themselves.

The lesions met with in the left side of the heart are precisely similar to those of the right; the physical signs are also the same, with some slight modifications; the rational symptoms assume an inverse order in the course of their development, as compared with those supervening on disease of the right side.

Obstructive disease of the left auriculo-ventricular orifice, or mitral contraction, furnishes the following signs: a diastolic murmur heard a little to the left of the sternum, beneath the cartilage of the fourth rib, and extending to the left apex of the heart—(this sound has been compared, we believe by Dr. Hope, to that elicited by pronouncing *whoo* in a whisper;) dilated hypertrophy of the auricle; pulmonary congestion—a very prominent and precocious sign, revealed by cough; abundant mucous and bloody expectoration; great diminution in the clearness and force of the aortic second-sound; the pulse small, weak, and unequal. Irregularity of the pulse, accompanying the characters just mentioned, indicates coexisting cardiac dilatation. A *bruit cataire*, or purring murmur, is sometimes heard at the apex. Consecutive dilatation of the right chambers of the heart is an almost inevitable result of this, as well as all other forms of obstructive or regurgitant disease affecting the left side, especially if the subject survive any considerable length of time. General venous congestion and anasarca

appear towards the end. It is in this form particularly, as well as in the regurgitant, that we are so liable to have what is called *pulmonary apoplexy;* that of the brain following directly cardiac disease of the right side.

Mitral insufficiency, the most common, perhaps, of all forms of valvular disease, presents us with the following physical and rational signs: a systolic murmur, propagated from the left apex to the point corresponding with the cartilage of the fourth rib, and a little to the left of the sternum; an accentuation of the pulmonary second-sound; feebleness of the aortic second-sound; pulmonary congestion and hæmoptysis; a small, miserable, unequal pulse, which contrasts singularly with the energetic character of the heart's action; general venous congestion and dropsical effusion ultimately follow this disease. Mitral regurgitation is, in some very rare instances, unaccompanied with a systolic murmur; the cause of this strange anomaly is not well known. In this case the diagnosis, unless aided by the other physical and rational signs, is necessarily obscure.

Contraction, or *obstructive disease* of the aortic orifice, is attended with these symptoms: a systolic murmur, heard with greatest intensity behind the left margin of the sternum, where the cartilage of the third rib joins it, the sound being transmitted upward, following the curve of the aortic arch; the *bruit* is heard, though sometimes feebly, at the left apex; dilated hypertrophy of the left ventricle; the aortic second-sound feeble; the pulse is generally small and wiry, particularly when the orifice is much constricted, the artery shrinking to accommodate itself to the scanty volume of blood thrown into it. Similar symptoms to those enumerated have been found to arise from other conditions, affecting the free circulation of the blood through the aorta, as the pressure of a tumor or condensed lung upon the vessel, the roughness of the lining membrane of the artery, aneurism, or abnormal dilatation of its arch or thoracic portion. Systolic murmurs, heard with greatest intensity over the aortic orifice, are by no means always symptomatic of organic disease. A *bruit de souffle*, or *bruit de diable*, extending from the sigmoid valves up the carotids, is one of the most common symptoms of chlorosis and anæmia. They are often present in typhoid, puerperal, and exanthematous fevers. Abdominal tumors, whether morbid or physiological, calculated from their size or location to impede more or less effectually the free circulation through the aorta, sometimes give rise to sounds so entirely similar, as to mislead the physician to suspect organic trouble of the sigmoid valves and orifice, where all, in the mean time, is perfectly healthy and intact.

Valvular insufficiency of the aortic opening furnishes the following symptoms: diastolic murmur at the left apex, and extending to the sigmoid valves, most intense around the latter point; the aortic second-sound often completely absent, or so modified by the regurgitant murmur as to be scarcely appreciable; accentuation of the pulmonary second-sound. A *vibrating fremitus* not unfrequently accompanies the regurgitant current. The pulse is soft, weak, and undulating, and sinks beneath the finger with extraordinary rapidity. There is, on this account, a remarkably long interval between the systolic impulse of the heart and the period when the pulse is felt at the wrist. General venous congestion and anasarca do not usually attend the early stage of this and the preceding form of disease; however, they are not slow in manifesting themselves, for pulmonary embarrassment, indicated by cough and hæmoptysis, is among the foremost complications of aortic contraction and valvular insufficiency.

While dwelling upon the physical signs of the various forms of endocardiac disease, we have had occasion to allude more than once to hypertrophy as a result. It may not be out of place here to describe more fully the different kinds of enlargement, and the peculiar organic lesions upon which they depend.

Hypertrophy, then, may be either *eccentric* or *concentric*. Eccentric or *dilated* hypertrophy supervenes when the current of the blood flows unimpeded into the auricle or ventricle, but has to be expelled from either chamber with difficulty, owing to a contraction of the orifice through which the blood has to pass in the natural state of things. Thus we have this form of hypertrophy in the left ventricle, for instance, when there is great constriction of the aortic opening, the left auriculo-ventricular orifice remaining in a normal, healthy condition. Not only are the walls double and triple their usual size, but the ventricular cavity also is greatly dilated. Eccentric hypertrophy does not always depend upon organic disease of the side enlarged. Thus obstruction to the circulation, originating in the left side of the heart, will produce dilatation of the right auricle and ventricle, although the valves and orifices of both preserve their normal integrity. *Atrophy* of the left cardiac parietes is generally, if not always, the necessary consequence of obstructive disease of the right side. General atrophy of the organ may be induced by any of the causes which tend to debilitate the powers of life, as organic or cancerous disease of the stomach, copious and long-continued hæmorrhages, insufficiency of nutritious and stimulating food; certain cachectic conditions of the system, as marasmus, anæmia, and chlorosis. Pressure from serous,

sanguinolent, and purulent effusions into the pericardiac cavity is a powerful means of producing atrophy of the heart. *Concentric hypertrophy* results when the current is obstructed in its ingress and egress. This is easily accounted for. The ventricle, for instance, in this case, receives but a very scanty supply of blood, its walls are consequently not distended to their full capacity, its chamber contracts by degrees to adapt itself to the small quantity of fluid poured into it from the auricle; but an impediment being presented to its free egress by constriction of the aortic orifice, for example, it requires a considerable degree of muscular force to overcome the resistance, and hence the variety of hypertrophy of which we speak.

The only disease with which acute, uncomplicated endocarditis is likely to be confounded, is acute inflammation of the pericardium, but in both diseases there are some very marked distinctive symptoms. Thus, in pericarditis, pain is very constant; the patient frequently complains of an insupportable burning sensation in the anterior and left portion of the chest, which he endeavors to assuage by swallowing cold drinks with great avidity, and seeking the fresh, open air, while the surface of his body, in the mean time, is often cold and livid. The precordial region is quite prominent, and gives dullness, on percussion, over an extensive surface. The sounds, communicated by auscultation, are most decisive, and are usually as follows: *a rubbing, rasping, bellows sound*, compared to that produced by stretching or crumpling new leather. This is heard during the ventricular systole and diastole; it has been designated, on this account, the *to-and-fro sound*. The normal cardiac murmurs resound indistinctly in the distance; they present a dull, muffled tone. Pain, as heretofore stated, very rarely, or never, accompanies acute, uncomplicated endocarditis; the skin is usually hot, and bathed with a profuse perspiration; the *bruit de râpe* or *souffle* is almost universally single; the heart's impulse is sharp, loud, and distinct, a circumstance which induced the illustrious Bouillaud to denominate, in his happy style, the sounds elicited "acute palpitations." The arching of the precordial region and dullness on percussion are never so prominent and extensive in the latter as in the former disease. The diagnosis of the chronic form of endocarditis is sometimes difficult and obscure; the physical and rational signs are often precisely similar to those we meet with in other conditions of the system—chlorosis and anæmia, for instance. Thus, the *bruit de souffle* and *bruit de diable* of these affections often perfectly simulate the rasping and bellows sounds of organic disease of the cardiac orifices and valves. Hæmoptysis, however, and hypertrophy of the heart

seldom, or never, attend pure forms of chlorosis or anæmia, as direct and necessary consequences; whereas they are inevitable in chronic endocarditis. These distinctions, together with the antecedent history of the case, will, in the majority of instances, serve effectually to dispel any obscurity which may hang around our diagnosis.

The dropsy, dependent upon valvular disease, can only be confounded with the anasarca following Bright's disease. An examination of the heart and urine will at once reveal the true source of the dropsical effusion, save in those cases where both organic affections exist simultaneously. In the dropsy supervening upon cardiac disease, albumen is scarcely ever detected in the urine, while in granular degeneration of the kidneys it is scarcely ever absent. As regards the comparative gravity of the two affections, both are equally serious to the poor patient; with this slight difference, however, that Bright's disease is often amenable to judicious treatment, while valvular disease, once established, can only terminate in the premature death of its victim. It is scarcely possible to mistake *ascites*, the result of cirrhosis of the liver, with that following the last stage of heart disease. Both dropsies follow an inverse order in their respective manifestation and development. Œdema of the lower extremities is among the first rational signs of cardiac trouble; ascites, from the same cause, among the last. Abdominal dropsy, on the contrary, which depends for its existence upon cirrhosis and other organic diseases of the liver, succeeds directly and immediately the hepatic obstruction to the portal circulation; œdema of the limbs being a rare and secondary complication.

The course, duration, and prognosis of endocardiac disease will depend upon its form and extent. The course of acute endocarditis, when left to the resources of nature, is usually very rapid, and may induce death in a few days. Bouillaud has limited this period to eight days; but the standard is an uncertain and arbitrary one, inasmuch as his cases were complicated with articular rheumatism, pericarditis, pneumonia, and pleurisy. The simple, uncomplicated form would, no doubt, continue much longer before the fatal termination. The abundant fibrinous concretions which collect in the chambers of the heart, and adhere to its lining membrane, opposing seriously the free circulation of the blood, seem to be the direct cause of death. The chronic form may, and generally does, continue for a long, indefinite period, and ultimately destroys the patient by dropsical effusions into the thoracic and abdominal cavities, and by fatal congestions of important organs of the economy. The disease sometimes proves suddenly fatal in another way. The little polypoid excrescences or tumors, of which we

have already spoken, as growing from the orifices and valves, occasionally become detached from their pedicles, are swept along in the torrents of the circulation till they arrive at some arterial branch, whose unequal calibre arrests their further progress, become firmly impacted by the ceaseless *vis à tergo*, infallibly cutting off all supply of arterial blood from the part to which the vessel is distributed, thus producing gangrene of the part, unless relieved by communicating branches, or even death of the individual in instances where such organs as the lungs and brain are concerned. It would be well, then, to seek for such accidents in all cases of sudden death from organic disease of the heart. Our prognosis must not always be influenced by the apparent gravity of the cardiac lesions, as manifested by the frightful murmurs which so often grate so harshly on our ears. As long as the tuneful rhythm of the heart's action remains intact, as long as the comparative prolongation and dullness of the first-sound, followed by the brisk, sharp-clacking stroke of the second is heard, so long may our prognosis of the case be favorable, no matter how formidable may be the physiognomy of the other stethoscopic signs—the heart is performing its all-important function healthily and well. But if the harmony or rhythm of the organ be impaired, if the natural cardiac murmurs be confused, or entirely silenced and superseded by obstructive and regurgitant sounds; if, with these untoward symptoms, we have pulmonary congestion and hæmoptysis, distention of the general venous system and anasarca, the case becomes then one of serious gravity, and consequently, our prognosis highly unfavorable.

Few diseases, within the broad domain of pathology, require so much vigilance and decision on the part of the medical practitioner, as the one which at present engrosses our attention. The treatment of acute endocarditis, to be at all satisfactory and efficacious, must be seasonably resorted to. Hence the urgent, imperative duty of the physician to examine carefully the condition of the heart in all acute rheumatic affections, particularly if the patient be young and of a robust constitution. This precaution is all the more necessary, since metastatic endocardiac disease is very often hidden and insidious in its early development. If we rely upon subjective symptoms alone in such cases, the great chances are we give such a *point d'appui* to the formidable enemy, that the whole arsenal of our remedies will prove completely inadequate in the subsequent contest to dislodge it from its ill-gotten stronghold. Local and general depletion, then, should be pushed to the utmost limits warranted by the severity of the inflammation and the patient's constitution to bear it. This should not

be restricted to one or two venesections, but must be repeated till a decided impression is made upon the circulatory system. It is at this stage of the disease, particularly, that the heroic treatment of Bouillaud, his terrific depletion, so widely known by the famous expression *coup-sur-coup*, is so eminently successful. Calomel and opium should then be given, say 1 or 2 grs. of the first, with $\frac{1}{4}$ or $\frac{1}{2}$ gr. of the latter every two or three hours, until the specific effects of the mercurial are manifested, when the dose may be gradually diminished in quantity, and the interval of administration lengthened. At this period, blisters, repeatedly applied to the precordial region, are signally efficacious. Bouillaud is accustomed to sprinkle 6 or 8 grs. of powdered digitalis over the raw surface at each dressing, and vaunts to have derived excellent effects from its use. Diluent and demulcent drinks, containing the nitrate of potash, should be freely given. Colchicum and hyoscyamus, in equal proportions, are often followed by beneficial results, particularly when we have to combat the rheumatic element. Veratrine is considered by some of the French physicians, of whom I may particularly mention Becquerel and Trousseau, almost a specific for all acute rheumatic inflammations. When this fails, as it often does, they resort to quinine, which they give in large doses frequently repeated, so as to amount to several scruples in the twenty-four hours. This treatment, according to the reliable assertions of those two eminent pathologists, *never fails* when employed in season.

Another remedy, highly vaunted in disease of the heart, is digitalis. This must be given in large doses, say a grain in the form of powder or infusion every two or three hours, at the very outbreak of the malady, in order to produce the full sedative effects of the drug. The same remedy is given in the latter stages of the disease, as a diuretic, when anasarca appears. It is then never given more frequently than two or three times in the twenty-four hours, due precaution being taken to guard against its powerful sedative action, which, owing to its peculiar cumulative property, sometimes unexpectedly explodes. The muriated tincture of iron, either separately, or in union with the digitalis, is a valuable adjuvant to our treatment at this particular stage. It not only seems to act as a diuretic, but also to give tone to the vessels and plasticity to the blood; thus counteracting, to a great degree, the tendency to dropsical accumulations. Its beneficial effects are strikingly manifest when the cardiac disease is accompanied with anæmia. The iodide of potassium, with cinchona, hyoscyamus, digitalis, and colchicum, is a valuable resource in chronic endocarditis. When the lower extremities are loaded with serosity, numerous punctures,

made with a large needle, give great relief, by drawing off a larger quantity of fluid than one would, at first sight, anticipate. This is far preferable to bandaging the limbs, a process which only hastens the appearance of dropsies in other parts, as the abdomen and body. When ascites is developed, we may have recourse to paracentesis, or the administration of elaterium, according to the circumstances of the case. When organic disease of the heart is complicated with general sanguineous plethora, blood-letting and hydrogogue cathartics are prominently indicated. The effects of a copious venesection, in such a case, are often truly magical. The distressing and tumultuous action of the heart, the turgid and apoplectic hue of the countenance, the enormously distended condition of the limbs and entire body, vanish with the rapidity of lightning, to the great relief and comfort of the unhappy sufferer. Elaterium acts well, in such a case, after blood-letting, particularly when the bowels are loaded with fæculent matter, or obstinately constipated. But if plethora and anæmia be the most favorable, inasmuch as being most amenable to judicious treatment, whether antiphlogistic or tonic, they are, unfortunately, the rarest complications of heart disease. Gastric derangement, torpidity and enlargement of the liver, constipation of the bowels, and congestion of the kidneys, are several conditions which frequently accompany and aggravate the cardiac trouble. The medium through which they react upon the diseased organ is doubtless the blood. This fluid, under such circumstances, is surcharged with all kinds of impurities, as bile, urea, uric acid, pus, and various other principles, which, in a healthy state, are either not formed, or, being formed, are eliminated from the economy, after having served the *rôle* allotted to them in it. It is in such cases that we see remedies, administered with the view of restoring the healthy functions of the digestive organs, followed by such cheering and salutary results. So very obvious and flattering are those benefits sometimes, that we are almost willingly deceived into the belief that the derangement of the abdominal viscera is the sole cause and mainspring of the cardiac trouble. This fact, however, so far from being true, only forms a rare exception to a very general rule. Functional disorders, frequently becoming organic, of the lungs, stomach, liver, and kidneys, are the most common results of obstructed systemic circulation, and also, as must be confessed, the most stubborn and serious complications of cardiac disease.

On a Source of Fallacy in Reinsch's Test, and the Diagnosis between Arsenical Poisoning and the Vomiting of Pregnancy: Suggested by the Smethurst Trial. By Benjamin Lee, M.D., New York.

One of the characteristic and striking features of modern science is the manner in which it interweaves itself into every department of human industry, art, and action. It thrusts itself upon the daily life of our homes, makes our coffee, ventilates our houses, furnishes our water, our light, our heat; it follows us as we travel by land, by water, or by air; it makes us masters of the earth beneath, and the heavens above; puts the lightning in harness, and makes an errand-boy of the impalpable and capricious *aurora;* it tracks the steps of guilt, and makes the livid corpse a surer witness to the crime of the murderer than the living tongue. On either side the Atlantic we have had recent evidence of the complete and undoubting faith which is universally placed in its skill, and its certainty in this last-mentioned most important exhibition of its wondrous powers.

Not more certainly did the rude tribunal of feudal days look for the blood to well up from the gaping wound that the assassin's dagger had left when he was brought face to face with his lifeless victim, than does the intelligent jury of to-day expect the subtle analysis of the chemist to bring to light the deadly drug that the poisoner's hand has administered, and not less implicitly does it found its decision upon the revelations of his test-tube and crucible.

In view of this implicit reliance upon the dicta of Science on the part of those to whom is intrusted the arbitration of the life of a fellow-man, of how vast importance does it become that she should not, by the carelessness, the oversight, or the culpable ignorance of her interpreters, betray the confidence thus nobly placed in her, and defeat the ends of justice by confounding innocence and guilt in the same fearful doom! In our own city a few months since, an example was afforded wherein a patient, painstaking, careful, and elaborate analysis brought most clearly and unmistakably before the minds of a jury the long-buried evidence of a death from that most deadly and (thanks to our legislators) most easily procurable poison—arsenic—and formed the strongest link in the chain of evidence which induced the conviction of James L. Stevens for the murder of his wife.

The chemical evidence which Prof. Doremus adduced was perfect and irrefragable, and, together with the lucid testimony of the medical witnesses for the prosecution, deserved all the weight which was given it.

A trial has just been concluded in England, however, which, while

it proves even more forcibly the depth of the impression which the revelations of the laboratory and the opinions of medical men make upon the unscientific mind, and the faith with which its oracles are received, does not, unfortunately, sustain either the lofty pretensions of analytical science, or the reputation of the somewhat distinguished toxicologist who conducted the investigation. As was truly remarked by the *London Times*, the verdict of the jury was founded almost exclusively upon the medical and chemical testimony. A brief recapitulation of the case will at once make this apparent, as well as the extremely faulty character of the evidence itself.

Did space and time permit, a careful comparison of it with that given in the Stevens case would possess both profit and interest, and, to say the least, would not place the American analyst and physician in an unfavorable light as compared with his English confrere. Such, however, is not the object of the present communication. I wish rather to call attention, first, to the unpardonable mistakes of Dr. Taylor; and second, to the remarkable similarity between some of the symptoms of arsenical poisoning and those of certain disorders of pregnancy. The case occurred in Richmond, near London, where, on the 3d of April last, one Dr. Julius was called by the prisoner, Dr. Smethurst, to see his wife, who was suffering, as he said, from diarrhœa and bilious fever.

Dr. J. tried one remedy after another: "chalk-mixture and catechu, compound tinct. of camphor, gray powder, pills of compound powder of ipecac, sulphate of quinia, dilute sulphuric acid, bismuth, ether, gentian, prussic acid," but all without avail, and, not suspecting the existence of pregnancy, fell upon the only other expedient to explain his ill-success, the presence of poison. He founded this diagnosis upon the following train of symptoms: "violent and intractable vomiting, (matters vomited sometimes green,) and retching, burning pains in the mouth, throat, and stomach, diarrhœa, and aphthous patches in the mouth." On the 18th, another physician, Dr. Bird, partner of the former, was called in, on account of his experience in the treatment of diarrhœa in India. He, while he was able to add nothing effectual to the treatment of his colleague, shared, it seems, in his suspicions, without any suggestion to that effect on his part. On the 28th, Dr. Todd comes down from London, examines the patient, prescribes pills of sulphate of copper and opium, and leaves after only a few hours, but before leaving, the suspicions of the other gentlemen are broached upon consultation; Dr. T. confesses to a like impression, strengthened greatly by the "mingled expression of terror and anxiety which he

noticed on the patient's face," and the like of which he had never seen before. An evacuation of the patient is procured and sent to Dr. Alfred Swaine Taylor, not unknown as the writer of a work on Medical Jurisprudence, for examination. He submits it to Reinsch's test, after having, as he deposes, carefully tested his materials and found them all pure, and discovers in four ounces of the liquid about the sixth of a grain of arsenic. On the strength of this discovery, Dr. Smethurst is placed under arrest, and other evacuations are forwarded to Dr. T., but he fails to detect the presence of the poison again. Two days subsequently the patient dies exhausted, and it is observed and made use of greatly to the prisoner's injury, that on these two last days she is able to retain fluids on her stomach, which she could not do as long as he was attending and nursing her. The report of the autopsy, by Dr. Barwell, of the College of Surgeons, is rather imperfect, but gives the following facts: "The arms were flexible, the legs rigid, the face of a dull earthy color, and emaciated; brain, lungs, and heart healthy; liver enlarged, hardened, and in a state of incipient fatty degeneration.

"The uterus was found to *contain a fœtus of about seven weeks.* Not a word had been spoken of *pregnancy* during the illness, nor does it seem to have been suspected by even Smethurst himself. At one end of the stomach was found a black patch, but no ulceration or acute inflammation." It contained a little blood. The intestines presented evidences of great inflammation, their lining membrane being in some parts almost entirely destroyed. Portions of the viscera were sent to Dr. Taylor. He found antimony in very small quantity in the lower intestine, cœcum, one kidney, and in blood taken from the heart.

In a syringe, which had been used in some part of the examination, he says that it contained a trace of a white powder, which was "either mercury, silver, or bismuth;" and adds, with a great deal of simplicity, that "he could not tell which." He found no trace whatever of arsenic in any of the viscera or tissues, or in the contents of the alimentary canal.

But now comes the most remarkable part of his testimony. A number of bottles, vials, &c., found in the prisoner's possession, were given to him for analysis of their contents. Among these was a bottle, of which he says, "I examined another bottle, No. 21, which appeared to contain a clear watery liquid, of a saline taste, and I tested a portion of the contents by Reinsch's test, and upon first trying the copper test, it (the copper) was entirely consumed. I made a further test, which led me to suspect that there was arsenic present;" (before

the coroner's jury his testimony was that in bottle No. 21 he found arsenic in the proportion of one grain to each ounce of the fluid; that he obtained the crystals of white arsenic; rather a strong suspicion, one would say;) "but," he continues, "it turned out that I was mistaken, and that it did not contain either arsenic or antimony, and that the arsenical appearances [one grain to the ounce!] originally produced came from the *copper gauze*." That is to say, that from the small piece of copper gauze that he would use in testing a few ounces of liquid, sufficient arsenic was obtained by the action of the chlorate of potassa on the copper to give a grain for every ounce of the fluid. His original statement must therefore have been a gross and culpable exaggeration, for as Dr. Herepath, in a letter to the *Times*, observes, such an amount of arsenic would have made the copper so extremely brittle that it would have been impossible to draw it into wire. The alteration in the mode of statement before the coroner, where it was to the prisoner's detriment, and before the court, where it did not affect him, is very remarkable. *Then* it was "a grain to the ounce;" *now* it is a "*suspicion* of its presence." He attempts to palliate and excuse this awkward mistake by saying that it was before unknown that chlorate of potassa had this solvent power over copper, and in this he is sustained by Prof. Brande, who testifies that it is "a new fact in chemistry." Dr. J. E. Rodgers, however, in a published letter, completely refutes this statement, showing that the fact has not only been long known, but that it has been made use of in the reduction of copper from obstinate ores. And also, that so far from the chlorate of potassa interfering with the testing for arsenic, it has actually been used by Fresenius and Babo as a means of separating arsenic from the blood.

But Dr. T. was determined that if the chlorate of potassa failed to convict the accused in one way, it should contribute to do so in another, and he therefore maintains that this article was administered to his victim (Isabella Bankes) by Dr. Smethurst, (who, as it appeared, had another wife living not many miles off,) in order that, acting as a powerful diuretic, it might carry off the arsenic from the blood and thus remove all trace of it from the tissues, forgetting that in just the degree in which it hastened its elimination from the blood and system, it would diminish its deleterious effects. Dr. T. concludes his testimony with the remarkable assertion, that having used this same copper gauze for the past twenty years, he "shall certainly continue to use it, but shall take care not to do so with chlorate of potassa." This copper gauze, so impregnated with arsenic that a

small piece of it dissolved in a solution of chloride of potassa gave a grain of white arsenic to every ounce of the fluid, he will continue to use as a test for the presence of that substance in cases where the life or death of a fellow-creature may depend on the discovery of a minute fraction of it. Is the learned doctor, until now ignorant of the fact that chlorate of potassa is a solvent for copper, so perfectly certain that there are no other articles in the laboratory or on the apothecary's shelf, of whose power he and all chemists are now ignorant, which may be equally solvents of copper? Is he certain that the intestinal glands may not, in a state of extreme irritation, pour out altered and depraved secretions, which shall contain salts capable of dissolving copper?* Is he certain that in that evacuation, four fluid ounces of which contained, as he estimated, the sixth of a grain of arsenic, on the discovery of which, in great degree, depended the conviction of the unhappy prisoner? Is he certain that there was not present in that evacuation some solvent of copper, the result of depraved secretion, and that the sixth of a grain of arsenic was not thereby set free from his own ganze? Dr. Alfred Swaine Taylor deposes, on his oath, that although "his evidence had often been called in question in other cases, he had never been proved to be wrong." It was perhaps an unfortunate occasion on which to make such a statement.

Upon this rather slender chemical and medical testimony, supported by correlative evidence which was certainly not stronger, the prisoner was found "guilty." The verdict appears to have excited some surprise; for no sooner is it announced, than with one accord barristers, physicians, clergymen, and toxicologists, rush into the columns of the *Times*, and utter their protest against it, and against the slovenly evidence which brought it about. A memorial letter, from the scientific witnesses for the defence,† petitioning for a reprieve, offers the following propositions:

"1st. The symptoms and pathology of Isabella Bankes were consistent with the theory of dysentery in a pregnant and previously unhealthy woman, and her death is ascribable to such cause.

"2d. The symptoms and pathology of Isabella Bankes were not consistent with the hypothesis of poisoning by arsenic, or antimony, or both, nor is death ascribable to such cause.

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* The researches of Continental pathologists and chemists have proved that the evacuations of dysentery afford phosphates of ammonia and magnesia, and chloride of sodium.

† B. W. Richardson, J. L. W. Thudicum, and F. C. Webb, all of the Grosvenor School of Medicine.

"3d. There is no proof that these articles were administered to the deceased."

It is with the first of these propositions that we have now to do.

It was sustained by many physicians of note writing to the daily papers, among them by Dr. Tyler Smith, the well-known obstetrician, who cites, with other cases, that of the gifted author, Charlotte Bronte, who died of uncontrollable vomiting during pregnancy, and whose case presented this point of similarity to Miss Bankes's, that during the few last hours of life she was able to retain fluids, as she could not before.

The theory of dysentery is intended to account for the intestinal disorder alone, while the vomiting is attributable to the irritant action of the gravid womb. Dr. Julius, in the course of his evidence, averred that he had "never heard of a case of vomiting in a pregnant woman which would not yield to remedies;" in other words, a fatal case of the sympathetic vomiting of pregnancy. Now, that such cases are frequent, it will not be attempted to maintain; or that it is anything remarkable that Dr. Julius should never before have met one in his own practice in a suburban village. But that Dr. Julius had never read of such cases, and did not know that every systematic work on midwifery, published in the last ten years, considers it necessary to devote an article to the consideration of the propriety of inducing abortion to save the mother's life, where all medicinal remedies fail, is certainly somewhat astonishing.

English and American periodical medical literature is rather meagre in reports of these cases, but a discussion in the French Academy, which took place between MM. Cazeaux, DuBois, and others, during its sessions of March, 1852, brought to light quite a number of them. M. Danyau, advocating the induction of abortion as a means of saving life, referred to thirteen reported cases. They are as follows:

2 cases by M. Danse, published in the "Repertoire d'Anat. et de Physiologie de Breschet."
1 case by M. Forget—"Gaz. Med. de Strasbourg." (Also to be found in the "London Lancet.")
1 " M. Vigla—"Gaz. des Hôpitaux," Octobre, 1846.
1 " Ashwell—"On Parturition," p. 194. (This case occurred at the 7th month.)
1 " Davis—"Obstetric Medicine," II., 871. (Was complicated with diarrhœa.)
1 " Johnson—"London Lancet," March, 1838, (at 4th month.)

1 case by Lobstein, at the 5th month, accompanied by gangrenous inflammation of mouth.

2 cases by M. Chailly.

Schnellbach's Thesis, Strasbourg { 1 case by Rigaud, of Strasbourg, occurring at 4th month.
1 " Breschet.
1 " Maygrier.

1 " Danyau, the father of the reporter.

M. DuBois sustained the same side of the question, and related twelve fatal cases of this disease, which had come under his own immediate notice within as many years. In order to present a clearer idea of the usual course of symptoms, I give them in a tabular form:

Twelve Fatal Cases of the Vomiting of Pregnancy, reported to the French Academy by M. DuBois.

No.	*Vomiting began at*	*Death at*	*Vomiting.*	*Skin.*	*Pulse.*	*Tongue.*
1	2d month.	end of 3d month.	violent and constant.	hot & dry.	small, frequent.	red & dry.
2	conception.	2½ months.	"	burning.	febrile.	red & moist
3	end of 2d month.	4th month.	"	.....	.....	.....
4	conception.	3d month.	"	.....	.....	.....
5	conception.	.....	"	.....	.....	.....
6	3d month.	5th month.	"	hot.	frequent.	dry.
7	2d month.	4th month.	"	.....	.....	.....
8	5th week.	3d month.	"	hot & dry.	febrile.	.....
9	5th month.	7th month.	"	.....	.....	.....
10	conception.	3d month.	"	.....	.....	.....
11	conception.	.....	"	.....	.....	dry.
12	conception.	3d month.	"	hot.	febrile.	dry.

No.	*Countenance.*	*Emaciation.*	*Prostration.*	*Cessation of Vomiting.*
1	Much altered.	Great.	Extreme.	4 days before death.
2	.....	Great.	Extreme.	3 days before death.
3	.....	.....	.....	.....
4	.....	.....	.....	.....
5	.....	.....	.....	.....
6	Altered.	.....	.....	.....
7	Altered.	Great.	Extreme.	A few days before death.
8	.....	.....	.....	.....
9	.....	Great.	Extreme.	.....
10	.....	Great.	Extreme.	.....
11	.....	Great.	Extreme.	On abortion.
12	.....	Great.	Extreme.	On abortion.

The symptoms which usher in death are usually a cessation of the vomiting, greater tolerance of food, severe headache, disturbance of vision, and coma.

In one case, No. 12, gangrenous destruction of the left end of the

stomach is mentioned; and in No. 2 the lips are said to have been much cracked.

In "Schmidt's Jahrbuch der Medizin for 1857" is an abstract of a series of articles, contributed by MM. Raimbert and Pigeolet to the *Journal de Bruxelles* for January, February, and March of the same year, "On the Irrepressible Vomiting of Pregnant Women." These gentlemen found their deductions upon *nineteen* fatal cases.

It is unnecessary to multiply references further, to prove the occasionally utterly intractable and fatal nature of this strange disorder. The matter vomited varies in different cases. In one reported by Meigs, ("Females and their Diseases,") it was a "brownish, ropy, rust-colored fluid." In a case successfully treated by Dr. Christie, of Cheltenham, England, it was "brown." In others it is "green." Dr. Tyler Smith says, in his recent work on Midwifery: "The matters vomited consist of the food and drink swallowed—an acid, glairy, or watery mucus; when very violent and long continued, of bile which has ascended to the stomach in consequence of a propagation of the anti-peristaltic motion into the intestine; or of blood from rupture of small vessels."

The same gentleman, after giving the progress of the symptoms—"tenderness of the epigastrium, general fever, great prostration, and debility"—continues, very forcibly: "An almost *poisonous influence* seems to be exerted by the gravid uterus in some constitutions." An instance was very recently related to the writer by Dr. B. F. Barker, which very closely resembles poisoning in all its details, and which terminated fatally. Its close analogy, indeed, to the case of Miss Bankes led to the inquiries upon which this division of the present paper is founded. The analysis of its stages, as given by Chomel and DuBois, bears, too, a sufficiently close resemblance to the course of poisoning by arsenic and some other chemical irritants.

They divide it into three stages:

1. That characterized by constant, obstinate, and violent vomiting, by which all nourishment is rejected. Emaciation and debility are a natural and speedy result of this state of affairs.

2. As a result of the first, a frequent pulse, hot skin, great thirst, and extreme acidity of breath.

3. The indications of the final surrender of the nervous vitality, "cerebral symptoms, hallucinations, intolerable neuralgic pains, cessation of vomiting, comatose sleep, and death."

It is by no means an uncommon thing for diarrhœa to coexist or to alternate with this sympathetic vomiting: it would be strange, indeed,

if the intestines, deprived of their natural stimulus, should not pour out unhealthy and irritating secretions, which should both constitute and propagate diarrhœa, or even dysentery.

The conclusion, then, is not a forced one, that the symptoms and pathology of Isabella Bankes were more consistent with the theory of gastric and intestinal irritation, sympathetic with and during uterine excitement from pregnancy, than with that of arsenical poisoning. The Secretary of State has shown his appreciation of its justice by answering the prisoner's appeal for reprieve by a commutation of the sentence from death to transportation. And the prisoner is at present occupied in drawing up a full statement of the case, which he and his friends have strong hopes may procure for him a full pardon.

The differential diagnosis between these two affections is, then, extremely difficult. So much so, that if, in a suspicious case, the existence of pregnancy, especially in its earlier stages, be demonstrated, nothing but the clearest proof of the administration of the poison, or of its post-mortem presence in the tissues or contents of the alimentary canal, should be considered sufficient to lead to a verdict of death by arsenical poisoning, or an expression of a suspicion of its agency during life. We may be assisted, however, in forming our opinion, by a recollection of the fact that the symptoms in the case of the vomiting of pregnant women are almost solely those which result from a diminution of the normal quantity of nutriment, and death in such cases is death by starvation. In arsenical cases, we have superadded to this train of symptoms those caused by the presence of the poison in the blood. The train of symptoms thus introduced is to be referred to the effect of the poison on the nervous system, and on the eliminating and excretory organs.

Symptoms referrible to the nervous system:

1. The loss of sensation, and subsequent motor paralysis of one or several systems of muscles, characteristic of slow poisoning by arsenic, would be entirely exceptional in the depressed state of the system, which is equally present in the sympathetic vomiting.

2. So, also, the cramps and convulsive spasms of the former are rare in the latter disease.

3. To the depressing effect of the arsenic upon the nervous system is probably owing the fact that the skin of those poisoned by it is very frequently cold, and covered with a clammy sweat; while in the vomiting of pregnancy, when it has reached its second and more serious stage, the skin is hot, dry, and burning.

4. While the constant vomiting of acid fluid may produce irrita-

tion, and even excoriation, of the mucous membrane lining the throat and mouth, and hence induce a burning pain, very similar to, though not so severe, as that produced by arsenical irritation, the peculiar sense of suffocation or constriction about the throat, so often noticed in the latter, is wanting in the former disease.

5. The profound collapse with which the scene usually closes in these cases is in contrast with the comatose state in which the woman exhausted with sympathetic vomiting dies.

Symptoms referrible to the excretory system:

1. The irritation of the poison in the intestinal canal seems to render the evacuations peculiarly fœtid and dark-colored. This is not observed in the natural disorder.

2. There is frequently partial or complete suppression of the urine, with more or less irritation about the kidneys and bladder, in these cases, while the others are free from it.

On the other hand, we notice, as more characteristic of the disorder of pregnancy:

Cerebral symptoms, mental hallucinations, &c, intense neuralgic pains, and an acid state of the breath, which, after the commencement of the second period, is so remarkable as to attract the attention of any one entering the room.*

These are the only points of difference of any prominence between the two diseases. It will be remarked, then, that the resemblances decidedly outnumber and outweigh the distinctions, and, what is more important in diagnosis, are more striking and apparent. While the diagnostic symptoms in a very marked case of either might lead one to a correct conclusion, under ordinary circumstances, extreme care, close observation, and an attentive consideration of all the attendant circumstances, would be requisite in order to insure this end.

The moral of this strange case, to both chemists and physicians, is evidently—

1. Be careful to study.
2. Study to be careful.

2 WEST 36TH STREET,
Oct. 11, 1859.

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* The cessation of vomiting and state of comparative ease during the last few days preceding death, which is almost pathognomonic of this disorder, is by no means characteristic of arsenical poisoning, although exceptionally observed in it.

Epistaxis of Alarming Character Arrested by Injections of the Perchloride of Iron. By E. J. Fountain, M.D., Davenport, Iowa.

I am induced to publish the following case from reading the report of "*Death from Epistaxis*," occurring in the practice of Dr. Triplett, of Virginia.

About two years ago I was summoned in haste to see a young man who was reported to be in a dying condition from loss of blood. The bleeding had continued uninterruptedly for about thirty hours, escaping constantly from the nostrils, and frequently thrown out in clots from the posterior nares.

He had been attended by a German physician, who had not succeeded in arresting the hæmorrhage, and before my arrival he had abandoned the case, from motives which I need not here mention.

I found him in a frightful condition, his face, hands, linen, and much of the bed-clothing, and the floor, being covered with blood. In one corner of the miserable apartment, where many people were crowded, was a pile of rags and towels, saturated with blood.

He was so impoverished that he could not support himself in an upright position, and the extreme pallor of his skin and colorless lips indicated plainly that he had lost a large quantity of blood.

I immediately plugged the nostrils, anteriorly and posteriorly, in the usual way. I supposed this would arrest the hæmorrhage, but I was mistaken. Very soon the blood escaped through the plugs in each direction, and the flow returned as profuse as before. I then removed the plugs, and rolling up two quite large pieces of fine, dry sponge, I introduced them as before, and so firmly, that I thought it would be impossible for a drop of blood to escape. I then left him, and returning an hour after, I was astonished to find the blood escaping as freely as ever. I again removed the plugs, and washing out the nostrils by injections of cold water, I pressed into each a roll of *tannin*, made into a soft mass with a little water and glycerine; I packed the nostrils full with this, but it did no good. I then introduced the plugs a third time, using compressed sponge, and forcing them in so firmly, that I feared I might have great difficulty in removing them. I then had ice applied constantly to either side of the nares, and kept the patient perfectly quiet. This answered the purpose for about half an hour, and then the bleeding returned as bad as ever. By this time the patient experienced the alarming symptoms of excessive loss of blood—ringing in the ears, occasional blindness, &c. The case looked desperate to me, while the patient, and even some of his friends, protested against further effort, as useless and cruel. I saw that it *must* be

checked very soon, or it would surely be fatal. I removed the plugs with some difficulty, and washing out the nares, I passed into each a piece of nitrate of silver, about a quarter of an inch in length, carrying them back with the forceps about four inches. I also introduced a curved injecting instrument, perforated towards its extremity with a number of small openings, and forcibly injected a strong solution of the same caustic. This did no good.

It now occurred to me that the perchloride of iron might answer the purpose. I soon procured it, and after washing out the nostrils as before, I injected a quantity of the undiluted perchloride into each nostril. This immediately checked the bleeding, and proved an effectual remedy.

Twenty-four hours after this the bleeding again returned, when I repeated the injections, and with the same happy effect.

There was no recurrence of hæmorrhage after this, and the patient soon recovered, so as to go about, but for quite a long time felt the effects of the loss of so much blood, which had been so excessive as to leave him but a very slender hold upon life. I know not in what other way it could have been saved; and the publication of this may be the means of rescuing others in similar circumstances.

Monthly Summary of Cotemporary Medical Literature. By O. C. GIBBS, M.D., Frewsburg, N. Y.

Quinine in Croup.—In the *New York Journal of Medicine*, for September, Prof. H. N. Eastman, of Owego, N. Y., has an article upon the pathology and treatment of croup, in which he speaks highly of quinine. In children from one to two years of age he gives from ten to twelve grains, in divided doses, in twenty-four hours. He says, "I have uniformly treated croup for several years past in this way, with as much confidence of success as I treat ague and fever, or any other intermitting disease; and in no one instance have I been disappointed in the result when called in the early, or what I consider the paroxysmal or congestive stage." He says further, "I am not aware that any of my professional brethren around me have adopted this course, or that any writer has suggested it." In the Transactions of the Kings County Medical Society, as reported for the *New York Journal of Medicine*, (see page 190, for 1859,) Dr. Bell says, "I think there is much to expect from the *early and bold* use of these remedies, and would suggest a fair trial of the *early and persistent administration*

of quinine with chlorate of potash, and the bicarbonates of potash and soda, as the most appropriate constitutional remedies."

In the *Buffalo Medical Journal*, for November, 1858, Prof. Rochester reports a case successfully treated, in which *quinine*, in *one-grain dose every three hours*, was a part of the treatment. Quinine has been used and recommended by others in croup, but we do not now remember by whom or where. For the last two years, the treatment that has been the most satisfactory in our hands has been a combination of quinine, opium, and ipecacuanha—the opium to be given in tolerably full doses—and a solution of chlorate of potash. Emetics we give when the symptoms seem to indicate their use, and generally select ipecac.; and when cathartics are required, we give calomel and rhubarb. Solutions of nitrate of silver are used locally. In our opinion, profuse blood-letting and large doses of antimony have killed more children than croup alone. Prof. E. R. Peaslee's opinions of the pathology of croup do not differ materially from those expressed by Dr. Eastman, though his treatment differs. While Prof. P. advises blood-letting and antimony, he recommends the strength to be kept up with *tonics* and *stimulants*, (see AMERICAN MEDICAL MONTHLY, for Aug. and Sept., 1854.) Dr. Chapman, of New York, thinks that the false membranes in croup are identical with the fibrinous casts in diarrhœa tubulosa, and the membranous casts that are thrown off in certain forms of dysmenorrhœa, (see *New York Journal of Medicine*, page 187, for 1859.) This is probably the view held by Dr. Jodin, of Dublin, for he recommends as a remedy the sesquichloride of iron, (see *Dublin Hospital Gazette*, Dec. 1, 1858, p. 366.)

Though Dr. Eastman was not the *first* to advise the use of quinine in croup, we do not prize his article any the less highly, but regard it as a valuable contribution to medicine. We presume to suggest that if he will add to the quinine, in future, opium and ipecac., he will have no occasion to regret it.

Medical Skepticism.—In the lecture upon Diseases of Children, by Dr. Jacobi, published in the *New York Journal of Medicine*, for September, alluding to medical skepticism in the profession, Dr. Jacobi says, "The cause of all this skepticism is found in the absence of both an exact and a distinct diagnosis, and of strict indications in the use of medicines. We shall always learn, that wherever a medicine is really indicated, a good effect will always follow a good dose, in such a manner that this one principle, *few medicines, simple prescriptions, and large doses*, will find its full justification." We know of no subject more practical than this, and should be glad to preach for an hour upon the

above text; however, we shall withhold the infliction. Dr. John Forbes, on the other side of the Atlantic, and his imitator, Dr. Jacob Bigelow, on this, have doubtless done more to foster quackery than any other two men of the present age. They have put in the hands of Thomsonians and Homœopaths weapons more powerful to injure the regular profession than any they had been able previously to command. It is only bungling and injudicious prescribers that decry the action of medicine, while those who see clearly an indication, and act upon that indication boldly, will, with each year's increasing experience, derive additional confidence in the utility and the unvarying effects of medicine. No medicine need be feared when there is a positive indication for it, and it is no evidence of the uncertainty and nonutility of any article because ignorant or careless persons have used it injudiciously and injuriously. Let us try to improve the therapeutic art, and not decry it altogether.

On Black Vomit.—In the *New Orleans Medical and Surgical Journal*, for September, its able editor, Bennett Dowler, M.D., has an able article upon Purpura, Scurvy, Hæmorrhage and Petechiæ, in which some opinions are expressed that are not in accordance with those generally received. We have space only to refer to a few ideas in regard to black vomit in yellow fever. Dr. Dowler says that his researches have led him to the conclusion "that black vomit is neither blood nor bile effused into the alimentary canal, and subsequently changed by acids."

"Writers speak of black vomit as the result of effused blood and an assumed hydrochloric acid, which two, meeting, mixing, and combining, form this black pigment. The theory is hypothetical, the hydrochloric acid a myth as to black vomit in New Orleans." "The pure liquid itself is generally bland and inodorous, particularly when excreted and ejected rapidly and in great quantity, without any tinge of blood or other accidental admixture, and the retained fluid is also found, after death, not to present the physical appearance of blood in not a few cases." The deviations from this, Dr. Dowler thinks, are the result of accidental additions. The chemical characteristics of this melanotic fluid, he thinks, with Thenard and some others, to be that of carbon. We cannot follow the author in his argument, or give in full his idea—we quote the conclusion. "Melanosis is a species of morbidity concerning which the most eminent histological pathologists agree in one particular, namely, that its nature is altogether unknown, and to this unwelcome category may be referred the melanotic fluid resulting from yellow fever. It is no explanation to say it is altered

blood, seeing that the nature of this alteration is unexplained by any of the artificial mixtures by which black pigments may be manufactured."

The opinions of Dr. Dowler, a patient investigator as he is, are worthy of respect and confidence, and his years of experience and observation among yellow-fever patients, and his hundreds of autopsies, give to his opinions great weight upon any points connected with this disease, though not in conformity with those generally received by the profession.

Varicose Aneurism, and its Treatment.—In the *New Orleans Medical and Surgical Journal* for September, E. D. Cherry, M.D., of Columbus, Miss., reports a case of aneurism by anastomosis of the face, successfully treated in the following manner: "The common carotid was ligated at the point of election, and also the superior coronary artery on the opposite side. Several ligatures were passed through the upper lip, for the purpose of facilitating the obliteration of this portion of the tumor." "I am induced to report this case from the fact that the ligation of large arteries for external aneurisms of this character is seldom attended with such encouraging results." We mention this case for the purpose of referring to a different treatment, practiced by Dr. Halsted, of New York. At the New York Hospital, last June, Dr. Halsted cured a case of varicose aneurism of the neck, by injections of perchloride of iron, (see *New York Journal of Medicine* for 1859, page 235.) "The patient was directed to lie upon his right side for an hour or two, when the tumor became distended; the doctor then injected fifteen drops of the liquid into a portion of the tumor upon the neck, and in a few seconds a coagulum could be felt in that spot, somewhat circumscribed, and about the size of a large hickory-nut. The instrument used was Luer's, which was brought from Paris by Dr. Suckley, and kindly loaned to the hospital. A little œdema began to show itself at the end of an hour after the operation, but subsided altogether in a day or two, leaving a hard, cartilaginous-feeling clot. In the course of the next three or four days the remaining portion of the tumor was injected; the same quantity was used, and with the same result. The tumor upon the neck is obliterated, and that without any unpleasant symptoms." Should Dr. Halsted's method of cure give like results in subsequent operations, it will take preference to ligation of the carotid artery, though it may not accord with the operative ambition of some young surgeons, by its superseding a showy procedure.

Singular Case, and yet more Singular Statement.—Dr. A. R. Newsom sends the report of a case to Dr. Bennett Dowler, asking for an explanation at length. The report is published in the September issue of the *New Orleans Medical and Surgical Journal*, and Dr. Dowler indulges in four pages of remark, but does not deny the correctness of the statement. The following extract from the report will give an idea of the case: "There is a negro in Franklin County, Mississippi, who is 34 years old, of large size, and was born and raised in that county. About three years ago he was severely attacked with disease, which rendered him helpless for months. During that time the *entire skin* (hair and nails) *peeled off*, leaving nothing but the *flesh* and *bones*. In a short time the skin commenced growing again, and *soon* covered the whole body, and now he is perfectly pied all over, the spots being of all shapes and sizes."

A disposition to report strange and marvelous cases is quite too prevalent in the profession. It should be allowed to characterize quacks, and not members of the regular profession. We think a more brief and pointed reply would have been more to the purpose.

Any person, even a "darkey," would have made a sorry attempt at living, denuded of the *entire skin;* and were life possible under the circumstances, which is very far from being the case, the fact that it was *soon* entirely reproduced, is a complete refutation of the whole story. We once saw a case in which the entire skin was removed, over a surface 13 by 15 inches, (195 square inches,) and it required *fourteen months* to reproduce it! Had the entire skin been removed, no attempt at reproduction would have been possible. That the *cuticle* might have peeled off is possible, and a change of color in the negro is not an event of unheard-of occurrence.

Extracting Foreign Bodies from the Eyelids.—We take the following from an editorial in the September number of the *Charleston Medical Journal and Review:* "Dr. Leon Renard, in a note to the editor of the *Union Médicale*, describes the following method of extracting small substances which have become lodged in the groove formed by the reflection of the conjunctiva from the upper lid to the sclerotic, and which often cannot be seen, even when the lid is inverted. The lid, being seized at its angles between the thumb and forefinger of each hand, is to be gently drawn forward and downward as far as possible, over the lower lid, and retained there for about a minute. On allowing the upper lid to return to its normal position, the flow of tears will carry off the foreign body, which will usually be found on the

lower lid, or on the lashes, or on the cheek. The writer states that he has often found this simple method of the greatest utility and convenience."

Ovariotomy.—In the *Semi-Monthly Medical News*, for September 15th, J. T. Bradford, M.D., of Augusta, Ky., has an able and interesting report on ovariotomy. The report opens with a letter from Charles Clay, M.D., of Manchester, England. Dr. Clay makes a statement of 76 cases. Of these 53 recovered, and 23 died. In the first 20 cases the deaths were 1 in $2\frac{1}{2}$; in the second 20, 1 in $3\frac{1}{2}$; in the last 36, 1 in 4. This shows a favorable progression towards a satisfactory result. In a letter to Dr. Bradford, Prof. G. C. Blackman, of Cincinnati, whose opinion is always entitled to respect, regards the operation of ovariotomy as a justifiable operation in suitable cases. Dr. Dudley, of Lexington, Ky., thinks he has seen cures effected by medical treatment, and his limited operative interference, he says, does not give him any evidence in favor of an operation. If he has cured genuine cases of ovarian disease—such as any judicious surgeon would think of operating in—by medical treatment, we should be glad to be favored with the *modus operandi*, for we have never seen such cases. Dr. Miller, of Louisville, says: "Of the propriety and necessity of ovariotomy in certain cases, I have no doubt."

Dr. Cartwright, of New Orleans, who is an advocate of operative procedure, speaks rather contemptuously of European authors, who condemn the operation, and ignore the truthfulness of the reported success in America.

Dr. McDowell, of Danville, Ky., was the first to successfully perform extirpation of diseased ovary, requiring the abdominal parietes to be laid open from sternum to the pubis. This operation was performed in 1809, and, nearly twenty years after, the truthfulness of the report was denied in New York, and heard of only to be derided in London.

Dr. Cartwright says: "Too little attention is paid to facts derived from American fields of experience, and too much importance is attached to the dogmas and opinions of book-makers and teachers in the large cities of Europe. They are mostly opposed to ovariotomy, because of the ill success which has attended it in Europe, and are slow to believe that inexperienced country physicians, in the backwoods of America, have been more successful than their most experienced and dexterous surgeons of their large hospitals."

Dr. Bradford collects the records of the operation in Kentucky.

He finds 30 cases, of which 19 recovered and 11 died. Dr. Bradford has engaged in *nine* operations, of which only one died. This is truly remarkable success, when we consider that the smallest tumor weighed 24, and the largest 60 pounds. He says: "My reading and study of the cases of the most successful operators, as well as my own experience, have taught me that there are two extremes in the time at which we should operate, both of which should be avoided. The one is, where the tumor is small; the other, where the operation has been delayed so long that the size of the tumor and the decline of the general health render it hazardous to operate."

Dr. Bradford concludes his paper with a caution in regard to hæmorrhage: "The pedicle, but more particularly the *ligament* of the *ovary*, is very *extensible* and *elastic*. If the tumor be lifted out with much force, or by any movement which places the pedicle on the stretch, so much so that it does not contract before the ligature is applied, that part of it which is most extensible when it does contract is apt to slip through the ligature, and still, without close examination, look as though all was right."

Cholera Infantum.—In a discussion upon this subject, before the Louisville College of Physicians and Surgeons, as published in the *Semi-Monthly Medical News*, for Sept. 15th, Dr. Caldwell gives it as his opinion that the disease consists essentially in a disturbance of the nervous and secretory functions. In regard to treatment, he first quiets the nervous system and checks secretion with opium. He says further, "Keep him quiet, remove him from all disturbing causes, and give him a purer atmosphere; nourish him, let him have the boiled bacon, as suggested by Dr. Thomson, or fresh butter, and plenty of it. I am satisfied that I have seen the best effects from a free use of this article. I do not like soups, but prefer animal broths to slops. Let him have plenty of cream, fat beef and mutton. Give him tonics and stimulants; liquor every day; keep him partially drunk with mint-juleps or blackberry cordial; I prefer the mint-juleps." If the disease assumes a chronic form, he advises a bark jacket, and the secretions to be regulated with calomel and quinine; $\frac{1}{4}$ grain of the former to $\frac{1}{2}$ grain of the latter. Drs. Powell, Wible, and Cook concurred with Dr. Caldwell in regard to the use of oils and fat, and cited cases in which they had used butter, gravy, cod-liver oil, &c., with marked success.

Chloroform in Strangulated Hernia.—In the *Cincinnati Lancet and Observer*, for October, Prof. W. H. Byford, of Chicago, reports a case of strangulated inguinal hernia, which resisted repeated efforts at

reduction. Chloroform was administered to complete insensibility. Upon examining the tumor now, Prof. Byford says, "to our astonishment and delight, the bowel was found to have entirely receded within the abdominal cavity. The finger could be easily passed along the inguinal canal through the ring, thus proving its entire freedom from disagreeable occupancy."

Nursing Sore Mouth.—In the same number of the *Lancet and Observer* just alluded to, Dr. Hamilton, of Lynnville, Ind., gives his treatment in a reported case of the above, sometimes rather rebellious, affection. He says: "After evacuating the bowels with a dose of rhubarb and magnesia, I gave iodide of potassa, in five-grain doses, three times a day, and sulphate of quinine, in six-grain doses, morning and evening; to which treatment the disease yielded in forty-eight hours." We have been in the habit of treating such cases with quinine and chlorate of potash, and the local use of a solution of sulphate of zinc, we thought with average success; but the cure of a disease that has its origin in constitutional impairment in forty-eight hours, is a success that we cannot boast of.

Poisoning with Opium, &c.—In the *Lancet and Observer* for October, Prof. C. G. Comegys, of Cincinnati, reports a case in which a man took two ounces of laudanum. About four hours after, Prof. Comegys found him "stretched upon the floor, cold, livid hue, feeble and small pulse, gasping, stertorous respiration, very slow—only five times a minute; torpor, and death-like insensibility." An emetic of zinc was given, which operated with no relief, and the vomited matter gave no odor of laudanum. Artificial respiration was instituted, and continued for *nine* hours, when the patient was restored to consciousness.

Prof. Comegys says: "Immediately after the recovery of the patient from the poisoning, he was seized with delirium tremens in its worst form." The Prof. "prescribed for him one drachm of tincture of opium every hour until he slept, after which he soon recovered."

The inquiry naturally suggests itself, Would the first dose have proved curative if the Dr. had not interfered? and what was the difference between the curative and the poisonous dose?

The case is one of interest, but we do not see the necessity of its being given *twice in the same number of the Journal, with language slightly varied!*

Cantharides in Whooping-Cough.—At the August meeting of the Buffalo Medical Association, as per report in the October number of the *New York Monthly Review and Buffalo Medical Journal*, Dr.

Cronyn speaks highly of the action of cantharides in whooping-cough. The following is his formula:

" R.—Tinct. cinchonæ, ℥jv.
" cantharidis, ℥iij.
" camph. comp., ℥ss.

Misce. Tea-spoonful three times daily in a table-spoonful of flaxseed infusion." Dr. Cronyn has treated about sixty cases in this manner. We quote from the proceedings: " In every case the severe paroxysms of cough had disappeared in ten days. He quoted Dr. Haynes, from *London Lancet*, that whooping-cough was as certainly cured with cantharides, as chlorosis with iron. He maintained that it was the cantharides which was mostly curative, since strangury seemed necessary to the cure. The medicine is to be continued until this effect is produced; afterwards give it in small doses. This has been called the abortive treatment of Dr. Haynes."

We hope that the expectation of Dr. Cronyn in regard to this article may be realized. We think it is not improbable but that the tinc. cinchonæ had some curative influence. Certain are we that the worst case we ever saw, occurring in an anæmic patient, and complicated with pneumonia and a congenital heart affection, we treated successfully with full doses of quinine and belladonna. For the last six years we have been in the habit of giving belladonna to our whooping-cough patients, as recommended by Dr. Jackson, of Northumberland, in the *American Journal of the Medical Sciences*, for August, 1834, and by Dr. Hiram Corson, of Montgomery County, Pa., in the same Journal, for October, 1852. The results of such treatment have given us better satisfaction than any other.

Milk Sickness.—In the *Nashville Journal of Medicine and Surgery*, for October, J. E. Nagle, M.D., has an article upon the above subject. He considers the disease a peculiar form of typhus fever, and he supposes it to be produced by a poisonous or fungus grass. He says, " That musty wheat and secale cornutum of rye will produce the gangrene typhus fever, is evidenced on good authority; that the fungus of grass has the same poisonous principle I am certain, and I think will be admitted, if the subject be examined."

With commendable zeal, Dr. Nagle experimented largely. On lands upon which this fungus grass was largely found, he pastured certain animals. " In a short time we discovered the disease was making way amongst them; those that died were subject to post-mortem examination, with the result above stated. We then cut the grass and cured it as hay, which we fed to healthy, fresh animals.

They soon gave evidence of distress: became thin in flesh, had excessive heat in the head and neck, a shriveled skin over the belly, were exceedingly costive, and, giving way to delirium and debility, they died in utter exhaustion and agony. We then found that dogs fed on the meat of such animals would get the same 'trembles,' the same symptoms, the same death, the same poisoned appearance on examination." * * "Not satisfied, however, we pushed the inquiry further, and discovered that this grass when fed alone, without mixture, produced the most horrible form of typhus fever, a pure poisonous fever, that was milk sickness in all its hydra gangrenous condition." * * "The result of cattle becoming thus diseased gives rise to sickness in the human body. The poison tends to the glands, and the secretion of milk will necessarily be charged with it; hence, when an animal uses the milk, or eats the flesh of such diseased cattle, the result must be a similar disease in the recipient."

There are but few subjects in medicine that have occasioned more controversy than the disease under consideration, and we look upon the paper of Dr. Nagle as one of the most satisfactory that has fallen under our observation. By many milk sickness has been considered a modification of malarious disease, and by others it has been supposed to be produced by some unknown toxic agent. Attempts have been made to specify the peculiar poison, but none, so far as we know, have based their opinions upon such careful and extended observation as has Dr. Nagle.

We quote his closing remarks in regard to treatment. "The main object is to keep up tonic, stimulant treatment, and particularly to keep the bowels open. This is the plain rule in all climates and in all localities. After the patient has convalesced, or is in such condition that he can take nutriment, *corn meal* will be found a specific against the poison. This matter I have thoroughly tested, and I can proclaim it as a certainty, that the hydrated peroxide of iron is not a more certain cure for poisoning by arsenic, than that corn meal is an anti-periodic and specific for the terrible disease known as milk sickness, or 'trembles.' Not only in man is it a specific, but in cattle—the cure is certain. Feed either party with it in plenty, give them all they can possibly eat, give it as mush and milk, as corn bread, as raw corn meal, or any other manner you can, but give corn to cure milk sickness."

Malarious Disease.—W. A. Brown, M.D., of Texas, has an article on intermittents and remittents in the October number of the *Nashville Journal of Medicine and Surgery*, that so exactly corresponds

with our idea of those diseases, that we are disposed to quote an idea or two for remark.

Dr. Brown asserts that intermittents never occur from any other cause than malaria. This specific poison he believes to be completely destroyed by Peruvian bark and its representatives. "Remitting fever is only an aggravated form of the intermitting type, and is cured just as certainly, and by the very same remedies, but more vigorously administered." * * * "We assert, that enlarged spleen, deranged liver, indigestion, &c., &c., following fevers of a malarious character, are the result of *treatment*, and not of malaria. This formidable catalogue of sequelæ are all artificial. We are ready to defend, and we believe to maintain, the position." "Since 1853, we have pursued the course of treatment given below, in malarial fevers, and during the period from then till now, have treated thousands of cases, having lived all the time in situations as much afflicted as any in the South, and have not lost a single case; nor has there occurred in our practice a single case of enlarged spleen, or any of the consequences usually attributed to those fevers or to malaria."

In our feeble way, we have advocated this doctrine for several years past. Our opinions are based upon seven years' experience and observation in a malarious region. We have never seen a case of malarious disease refuse to yield to treatment, nor to stay cured, where our directions were attended to. We believe the best "preparatory" treatment for intermittents and remittents is that which will immediately prevent a return of the paroxysms on the one hand, or the continuance of the fever on the other. For ourselves, we have no doubt but that malarious diseases can be prevented, cured, and that cure made permanent, at the will of the adviser. The present is not the proper place to enlarge upon these points.

Tetanus.—Paul F. Eve, writing from Turin to the *Nashville Journal of Medicine and Surgery*, makes mention of a case of tetanus cured. He says: "The patient was shot at Solferino, by which the tibia was fractured. This was on the 24th of June. The attack of lockjaw commenced July 12th, and the surgeon in charge ascribes the relief to *muriate of baryta*, given, I think he said, in six grains to 20 or 30, three times a day. By this remedy, he told me he had cured four cases." When the contractions are violent, chloroform is inhaled.

Ligation of the Carotid Arteries for the Cure of Epilepsy.—In the *Cleveland Medical Gazette* for October, Prof. G. C. E. Weber reports a case of epilepsy in which he attempted a cure by ligating the com-

mon carotid artery. The patient was a young man of twenty years, and had suffered from the disease for five years, and for the last year or more the fits had usually recurred once or twice daily.

The patient supposed the disease originated in a fright when debilitated by sickness; he confessed to having been long addicted to masturbation. After exhausting the usual remedies, with but little or no benefit, December 2d, 1857, Prof. Weber tied the left common carotid artery. For seven days the patient was free from fits, and felt completely relieved. From this date they returned, and soon became nearly as severe as at first. Seventeen days after the first operation, the right common carotid was tied. After the second operation, the patient was entirely free from fits for five weeks. For the next six months, the fits occurred on an average about once a week, since which time they have slowly increased in frequency. The fits are said not to be as severe as before the operation. Previous to tying the carotids the intellectual powers were entirely unaffected, but in the two succeeding years the intellectual impairment is quite perceptible. Is it not possible that this last result is partially, at least, the result of the operation?

While in the operation mood, why not try castration, which has been so strongly advised by several surgeons?

Abscess of the Liver.—In the *St. Louis Medical and Surgical Journal*, for September, Prof. Wm. M. McPheeters reports an interesting case of abscess of the liver, which discharged first through the lungs and subsequently through the bowels, and yet speedily and completely recovered. Prof. McPheeters thinks it probable that there were two abscesses, which pointed respectively in the two directions indicated, and which emptied their contents with an interval, perhaps, of two or three weeks between.

The treatment, during the period of purulent discharge and until recovery was complete, consisted of tonics, stimulating expectorants, and a generous diet, with wine.

Itch Ointment.—In the *Atlanta Medical and Surgical Journal*, for September, a *Retired Pharmacien* gives the following formula for itch ointment: "℞.—Brown soap, one oz.; salt, ½ oz.; sulphur, ½ oz.; alcohol, one drachm; vinegar, 2 drachms; chloride lime, ½ drachm. Mix. Apply thoroughly to the affected parts on going to bed at night. The mixture should be prepared for each case, as it does not keep well. Its efficacy has been well tested by the writer, as well as by others."

The above is probably not more effectual than the simple sulphur

ointment; but, if properly scented, it would probably be less objectionable to the fastidious.

Toothache.—In the October No. of the *Atlanta Medical and Surgical Journal*, Dr. Brown has the following: "When there is exposure of nerve, and only slight inflammation, there is a chance to save the tooth by destroying and removing the nerve, and then thoroughly filling the nerve-cavity, and also the cavity of decay, with gold. This department belongs exclusively to the dentist; but the physician is often called upon to 'put something in' to relieve the pain. Many would prefer to do this to extraction. In my own practice I have found the following mixture to be of great benefit in giving temporary relief:

R.—Spirit. ammoniæ,	℥ss.	
Chloroform,	℥j.	
Ol. caryophyl.,	℥ij.	
Tinct. camphor.,	℥ij.	Misce.

After cleaning out and drying the cavity, a small pellet of raw cotton should be moistened with this, and applied to the exposed pulp, repeating the application as occasion requires."

Toothache—Submucous Injections in.—In the *Boston Medical and Surgical Journal*, for October 6th, Dr. H. R. Storer recommends submucous injections for the cure of toothache, occurring in pregnant females. He reports a case in which various remedies were resorted to for several weeks without benefit. A tooth was finally extracted, and still no benefit. "Ten drops of the Edinburgh solution of the bi-meconate of morphia were now injected beneath the mucous membrane of the gum; the pain ceased instantaneously, and from that moment to the present, a period of nearly five months, there has been no return of the malady." In all purely nervous cases of this "hell o' a disease," as Burns demonstrates it, it is probable this remedy would prove equally effectual.

Ingrowing Toe-Nail.—In the *Medical and Surgical Reporter*, for October 15th, H. B. Wilson, M.D., of Boonsboro', gives what he calls a sure and painless method of treatment. He says: "My plan is, first to take a perfectly sharp scalpel, and beginning at the end of the nail, on the sore side, gradually and slowly divide about *one-fourth* of the nail from the end to the root." * * "The next thing to be done is, not to dissect out the nail, or forcibly draw it out by the root; but to introduce a *very* little raw cotton under the edge of the smaller portion, or between the two edges where it has been split, as far down as the root; then bind the toe up in a slippery-elm poultice, in order to

reduce the inflammation. In another day, the cotton can be pushed still farther under the nail, and the nail itself will begin to let go its connections and become loose. On the second day, or at most the third, the fourth part and offending portion *will come out of itself*, or can be gently removed *without the slightest pain*, and the toe will then get well without any further treatment." Since copying the above, we have tried this plan of cure in one very bad case, with results quite satisfactory.

Epistaxis.—In the *Medical and Surgical Reporter*, for October 22d, Dr. D'Arcy, of Jerseyville, Ill., reports a case of excessive epistaxis, cured by a novel and very ingenious method. Two days were spent in fruitless attempts to arrest the hæmorrhage by "front and rear plugging," with muslin saturated in melted beeswax, and still the blood would ooze past both plugs. The doctor now took a piece of intestine, "such as is used in sausage-making," ligated one end, and introduced throughout the whole extent of the nostril. "Water was then poured into the front end, and pressure made by forcing the water into the nostril." This burst, and a new experiment had to be instituted. "A sheep was instantly killed, and the œsophagus removed. We properly introduced the œsophagus of the sheep, ligated it as in the previous attempt, and poured in the water. Then ligated the front end, pressed up the water by compressing the œsophagus with the hands, until the pressure produced severe pain in the nares. The bleeding at once ceased. We were completely successful." The œsophagus was removed on the second day, and the hæmorrhage did not return. This was certainly a very ingenious way of applying pressure, and meeting the exigencies of the case.

REVIEWS AND BIBLIOGRAPHY.

Elements of Medicine: A Compendious View of Pathology and Therapeutics; or, the History and Treatment of Diseases. By Samuel Henry Dickson, M.D., LL.D., Professor of the Practice of Physic in Jefferson Medical College, Philadelphia; formerly Professor of the Institutes and Practice of Physic in the Medical College of the State of South Carolina, and of the Theory and Practice of Medicine in the New York University. Second Edition, revised. Octavo, p. 768. Published by Blanchard & Lea, Philadelphia.

Works upon practical medicine, evincing a high order of merit, have formed no inconsiderable part of the recent issues from the pro-

lific medical press. We may instance among London authors Drs. Watson, Bennett, and Copland, and among those of this country Drs. Wood, Dunglison, and the late lamented Drake; and, in contemplating their works respectively, we take pride in the consciousness that the works of our own countrymen will lose nothing in the comparison. There is no danger that works of such decided merit, and each possessing its own peculiar excellences, will ever become too numerous. Facts and principles are rendered familiar by repetition; and a new book, though it may contain much that is common to an old one, holds new language, and presents new connections; thus inciting to new study, and a consequent greater familiarity, not only with basic, but adjuvant and collateral new ideas. He that would become a thorough student in physiology, would not confine his studies to one authority alone, but would carefully compare the researches and the writings of various experimenters and authors. So he that would be thoroughly posted in Pathology, and skilled in Therapeutics, would not confine his studies to Watson or Wood alone, but carefully read and compare the observations and judgments of many.

Dr. Dickson's *Elements of Medicine* is not a new candidate for public favor, though it has not until now fallen into our hands. The first edition was issued four years since, and consequently this, the second edition, needs no special review from us. Yet, because the first edition was not noticed in the MONTHLY, we shall endeavor to give our readers, who may not have seen the work, some idea of its contents.

The work before us is divided into two parts. The *first*, occupying nearly 200 pages, is devoted to *General Pathology;* and the *second* to *Special Pathology and Therapeutics.*

Part first is divided into five sections, viz.: 1st. The nature of disease; 2d. Etiology; 3d. The seats of disease; 4th. The phenomena of disease: and 5th. The tendency of diseases. This part we consider especially excellent, presenting an admirable outline of the principles of medicine, as full as is consistent with the character and limits of the work, in a style, for interest and elegance, scarcely second to that which has made the work of Dr. Watson so popular.

We had marked many passages for quotation, and an occasional one for criticism, but our limited space will compel us to forego, in a great measure, the pleasure of the former, as well as the labor of the latter. We shall, however, quote a few passages for remark.

In speaking of vicissitudes of temperature as causes of disease, Dr. Dickson says: "Such alterations, however, within certain limits tend,

undoubtedly, to confirm and invigorate human health. Poets alone eulogize an eternal spring; and the highest animal tone and strength of constitution belong rather to cold and changeable climates, than to those which are warm and equable."—(P. 47.)

We believe this to be true, and cannot but regard that unfortunate band of consumptives with pity, who, in accordance with bad advice, leave a dense and bracing atmosphere, of which they cannot breathe too much, for the rarefied and sultry air of the hot regions of the South. Were we numbered among the list of consumptives, we would, if strength and energy were not all gone, sooner trust to the bracing and appetizing influences of a Canada winter, with reasonable exertion and exposure, than to the enervating influences of a Florida or Cuban climate. Physicians have catered too much to the consumptive's immediate comfort, without due regard to his ulterior advantage. We have no doubt that it is easier to lounge in the shade in Florida, than to skate upon the ice-bound rivers of a Canada winter; and yet we have no doubt the latter is the healthier exercise of the two, and the most conducive to longevity.

In speaking of dietetic influences, as causes of disease, the author says: "In this country, it may be affirmed that we have the worst possible cookery; and hence indigestion or dyspepsia prevails almost as a national infliction. But our custom of hasty eating, and our almost universal habit of chewing tobacco, tend also to the same result." How many a young lady enters upon the practical duties of life, as wife, and perhaps soon as mother, capable of reading French with fluency and playing upon the piano with skill, that cannot make an eatable loaf of bread, a drinkable cup of coffee, or cook a steak! Such will meet with vexation and entail misery and ill health upon their families, for which learning and accomplishments can never compensate. Cookery should form a part of the practical studies in every female seminary—it is even of more importance than agricultural studies to the farmer. Our habit of using tobacco is a national calamity; productive of more ill health, if not of mental and moral degradation, than opium-eating among the Orientals.

The author is a believer in the contagious nature of yellow fever, typhus, cholera, &c. We quote the following with pleasure, as illustrative of the author's style: "If we deny the organic, self-reproductive character of the causes of these zymotic diseases, we have to contend with insuperable difficulties. Let us select the example of the last-mentioned pestilence—Asiatic cholera. It is so widely prevalent, that immense masses of the causative poison which excites it

must exist on the earth's surface. This poison must either be generated by local causes everywhere, wherever it is active, or it must have been produced originally in infinite abundance, to admit of its effective diffusion over such vast spaces. The first notion is most generally entertained; but surely nothing can be imagined more contrary to all experience or analogy—may we not say more difficult to conceive possible—than the telluric elimination, or the atmospheric production, of the same inorganic poisonous element in the depth of a Russian winter, and in the burning heat of summer in Hindostan; bidding defiance alike to climate and season, and overriding all local contingencies, all geological and geographical peculiarities; prevailing where the ground is frost-bound and covered with snow, and where malaria steams up from the hot, marshy soil; alike fatal on the swampy delta of the Mississippi, and the arid sands of the Great Desert; in the purlieus of St. Giles, on the banks of the crowded Thames, and on the desolate steppes of Tartary; on the granite of Staten Island, and the calcareous and coal formations of the West; along the sea-coast, and the wide fresh-water lakes of our interior; and even exploding vehemently, with the most startling abruptness, among the passengers of more than one solitary barque on the boundless ocean."—(P. 78.)

* * * "Let a healthy man sleep in a solitary rice-field, a desolate jungle, or a wild swamp, in a summer night. He will almost surely be seized soon after with disease of known and anticipated type. But an attack of cholera can only be procured *among subjects laboring under the pestilence*, or in their neighborhood, or as infected by fomites imbued with its material cause. This may be *transported with persons anywhere;* it remains fixed nowhere, but goes and returns."—(P. 74.)

We do not subscribe in full to Dr. Dickson's ideas of contagiousness of several of the epidemics, and the transportability of the same. We hold that a truly contagious disease has its origin in a specific poison, which poison *is formed in the living fluids of the body.* The causative agent upon which cholera and yellow fever depend has its existence in conditions external to the body. That yellow fever, for instance, has terrene and atmospheric causative relations and conditions, which conditions being absent, the disease cannot exist, is a fact that cannot be successfully controverted. Remove a yellow-fever patient from New Orleans to a healthy region in the country, and he will never become the focus and the origin of new attacks. In what respect, then, does yellow fever differ from an epidemic that is acknowledged not to be contagious? It can only spread, seemingly like a contagious disease, in localities where the conditions are present for

its idiopathic development. The first disease is manifested where the concentration of the miasm is greatest. Succeeding cases are in the same or adjacent localities, not because, as supposed, of its contagiousness, but because of the concentration there of its appropriate and absolutely essential causes. It cannot be carried up rivers, across oceans, into the interior of the country, nor up mountains, and be made to spread as a contagious affection there, or anywhere where the disease is not capable of idiopathic development.

We are too apt to reason from limited premises. We have seen pneumonia go through a family of five or six children, each new attack occurring at regular intervals of about ten days from the preceding. No argument could convince the friends that the disease was not contagious. The facts were, that it was simply an accidental and unexplainable circumstance. But we must not protract this discussion. We cannot, however, refrain from quoting another pertinent sentence: "Nothing seems to me more trifling or illogical than the attempt every day repeated—*usque ad nauseam*—to account for the production of this malady by references to influences and contingencies of local and limited power, and of transient application," (p. 272.) Can this disease be produced where these contingencies of "local and limited power" do not exist? In other words, can the disease be communicated by any concentration of the contagious element, where certain external contingencies, partly atmospheric and partly terrene, which we call causative, do not exist? If not, who is the illogical trifler? Bearing upon this point, we are disposed to make one additional quotation. He says, "Sir James Fellows tells us that, during the fever of Cadiz, in 1800, the air became so vitiated that its noxious qualities affected even the animals; canary-birds died with blood issuing from their bills, and in all the neighboring towns, which had been infected, no sparrow ever appeared. Rush says that cats died in great numbers, in the streets of Philadelphia, from the pestilential state of the atmosphere. Perlee affirms, that about Natchez, in 1819, not only domestic animals, but even the wild deer of the forests, shared the influence of the epidemic constitution of the air." Now we would ask, were those animals affected by a contagious element, developed *within* the human system, and so exhaled as to poison the entire air? or were they not rather under the influence of the same miasm that produced the fever in man, and which miasm was developed *external* to the body, and dependent upon local contingencies for its existence? We may return to this subject on some future occasion.

Speaking of specific poisons, the author makes a statement that we

had supposed to be untrue. He says, "Most strange of all is the instance of vaccine, which protects so admirably against variola—temporarily, without doubt, if not permanently; *yet does not prevent any frequency of repetitions of its own peculiar infection.*" Does Dr. Dickson mean to say that the vaccine disease can be produced any number of times in the same person? If so, he is most decidedly in error. We have repeatedly vaccinated with no more effect than would arise from the insertion of any other purulent matter. In the army and navy, particularly of European countries, recruits are ordered to be vaccinated and revaccinated until it *fails* to produce its specific and peculiar effect, at which time it is supposed the subject is perfectly and probably permanently protected against variola.

The author takes a philosophical and hopeful view of death. He says, "The shortness of human life has been the subject of incessant lamentation and repining, and yet without just cause; for if ultimate decay be a necessary consequence of the construction of the body and the constitution of its materials, death surely is to be considered rather as a relief from the evils of old age. Indeed, when we look upon the dim eye, the tottering step, and the childish imbecility, both mental and physical, of the old man, it is a melancholy consolation to reflect that the outlets from life are so numerous, that we are likely to reach our certain goal, the grave, by some nearer and less lingering route, and thus escape the hopeless and helpless state of driveling dotage," (p. 178.) This reminds us of the devout poet, who says,

"I would not live always,"

and the response of some undevout individual, who says,

"Well, you needn't fret about it,
For you *couldn't* if you *would*."

There are but few of us in danger of "driveling dotage," we apprehend.

We must conclude these rather random remarks, and will do so by giving expression to our opinion of Dr. Dickson's work as a whole. The first part of the work is exceedingly well done. The outlines of *General Pathology* are well marked out, and in style beautiful and fascinating. The second part of the work, devoted to *Special Pathology and Therapeutics*, is perhaps as well done as could well be in the same space; but, as a work for students, we think a little more amplification, in regard to the minutiæ of treatment, would have been a great improvement. The mechanical execution of the work is excellent, and the volume really deserves a place in the library of every American physician. O. C. G.

A System of Surgery: Pathological, Diagnostic, Therapeutic, and Operative. By Samuel D. Gross, M.D., &c., &c. Illustrated by 936 Engravings. 2 Vols., each 1,160 pages. Philadelphia: Blanchard & Lea. 1859.

A careful examination of these volumes has afforded us much gratification, and we have been very greatly tempted to prepare a long review of them. Believing, however, that it is not so much long discussions of theoretical questions, or careful picking up of minor errors, that our readers desire, we abstain at a great sacrifice of feeling, and proceed to give a short account of the volumes, that our readers may judge for themselves whether or not they care to purchase them for their own use. Reader, beloved, (if you have paid your subscription,) is not that what you really want? Mr. Publisher, have you any right to ask any more?

The work is divided into two parts: one entitled *general* surgery, and the other *special* surgery. The following is the series of topics which are the subjects of the different chapters of the first part, viz.: irritation; sympathy and idiosyncrasy; congestion; inflammation, with its terminations and results; textural changes, congenital malformations, tumors, scrofula, wounds, effects of injuries upon the nervous system, syphilis, general diagnosis, minor surgery, operative surgery, (its general rules,) plastic surgery, subcutaneous surgery, amputations in general, excision of the bones and joints, and anæsthetics.

This part occupies about one half of the first volume. The remainder of this volume, and the whole of the second, are devoted to special surgery; that is, to the consideration of the diseases and injuries of particular organs, textures, and regions. It is, of course, unnecessary to specify the particular titles of the chapters, varying as they do from diseases of the eye to those of the urinary organs, from hernia to diseases of the air-passages, and including all those diseases which come under the care of the surgeon.

Of wood-cuts the first volume contains 292, and the second volume 644, making the large number which is somewhat pompously displayed upon the title-page. They are, as a whole, very good, and we do not remember noticing a really *bad* one among them. Some of them are particularly clever.

Were we now to write a review of this work, we should discuss with the author his theory of inflammation, in which we believe in some points he falls into errors, and yet it would be necessary to acknowledge that his directions for *treating* it are in the main sound and judicious. We should notice what is, perhaps, not unnatural, though

unfortunate, that the author has rather an exaggerated idea of the value of his own opinion as compared with that of others; that a certain carelessness of style is too often noticeable, as for instance on page 239, where it is said that "granulation is the process by which *lost* tissues are *repaired*," whereas if lost they can only be *replaced*, and it is added, "the *operation* is one of great interest;" that it is a very good idea to introduce the chapter on general diagnosis; that in treating of the use of subcutaneous injections, for the cure of neuralgia, it would have been more manly to have mentioned Wood's name, even if the author did claim a priority in the use of the method; that we do not like his use of the words *burse* and *fistule* for *bursa* and *fistula* any better than formerly, and cannot get rid of the feeling that their introduction is an absurd and unnecessary affectation; that in a man who has written so much about encouraging American authors and American talent, it would have been well to have noticed Heydock's method of treating fractures of the neck of the lower jaw, the only really effective way of retaining the parts in apposition in this rare injury; that his chapter on diseases of the eye is unusually sensible, and free from the affectations of many specialists; that if he wished for the best possible exploring needle, he would use a *perforated* in preference to a *grooved* instrument, (perforated, of course, its whole length,) the impossibility of confusion from the superficial fluids making it of especial value in exploring deeply-seated disease; that his statements with regard to the treatment of carious disease of the spinal column show that he is not familiar with recent and most important improvements in the application of mechanical support; that the same may be said of the section on coxalgia; and that many other things merit commendation, while some are blemishes on the work.

Still, it would be necessary for us to add, that in our opinion the work is very well adapted to the demands of a large class of the profession, and one which will be of value in every professional library; to young practitioners, or to those who are compelled to limit themselves to a few books on surgery, it will be very welcome and very useful. It is well printed, and well bound. E. H. P.

A Practical Treatise on the Diseases of Infancy and Childhood. By T. H. TANNER, M.D., F.L.S., &c. Philadelphia: Lindsay & Blakiston. 1859.

We have already had occasion to speak in commendation of another work by this author, entitled "A Manual of the Practice of

Medicine." Although manuals are frequently too flippant, and so condensed as to be of little real practical value, yet these works of Dr. Tanner form exceptions to the general rule. In the present volume, which from its subject admits of being limited to a moderate compass, the management of children from birth and the conduct of women during pregnancy, are prefixed to the chapters on infantile diseases. Another chapter is devoted to infantile therapeutics, and to the book is added an appendix of formulæ, which greatly assists the practitioner in preparing his own method of treatment. These prepared formulæ are objected to in some quarters, but we can see no more objection to them than to the general description of the disease, or the treatment recommended by the author. The intelligent reader will adopt or reject them as he finds that they accord with his own views; while for those who are inclined to use the opinions of others without weighing them, it is well they have so well-informed and so trustworthy a guide as Dr. Tanner proves himself to be in these pages.

A Treatise on Baths, including Cold, Sea, Warm, Hot, Vapor, Gas, and Mud Baths; also, on Hydrōpathy and Pulmonary Inhalations, with a Description of Bathing in Ancient and Modern Times. By John Bell, M.D., &c. Second Edition. Philadelphia: Lindsay & Blakiston. 1859. pp. 688.

It has been our intention to give more than a mere notice of this work. The subject is one upon which the profession is perhaps as little informed as any allied to the study of medicine, and for that reason we hoped to be able to give as thorough an analysis of Dr. Bell's work as our space would admit, in order to draw the attention of our readers to the subject of the more general use of baths, as a therapeutic means. The length of our reviews heretofore has prevented us from carrying our desire into execution, and, not to keep this work longer on our table unnoticed, we simply announce it, with our hearty commendation.

In this country, which abounds in mineral springs, which has an extensive sea-coast, fashionable places of resort for bathing and for taking the waters, it is strange that a systematized and reliable work upon any mineral spring is hardly to be obtained.

It is a fact that the bath beyond the pediluvium is rarely used, out of the hydropathic establishments, and yet, as an adjuvant, there is no more powerful means to be found. The iron bath, the nutritive

bath, the vapor bath, the various medicated baths in constant use in Europe, are here employed in most instances by empirics, and perhaps for that reason avoided by the regular profession.

Dr. Bell in his treatise discusses the whole subject: gives the history of bathing and baths from the most remote period of antiquity to the present time; the forms employed in various countries; the different varieties of baths; the hygiene of bathing, and the therapeutical uses of the different kinds of baths.

In preparing this history, the literature of the subject has paid its contributions to perfecting the work. As a compendium and a reliable treatise, we know of no work upon baths and bathing which can give the reader as much information as this.

A History of the Discovery of the Circulation of the Blood. By P. FLOURENS, Perpetual Secretary of the Academy of Sciences, &c. Translated from the French, by J. C. REEVE, M.D. Cincinnati: Rickey, Mallory & Co. 1859. pp. 175.

"The discovery of the circulation of the blood did not belong, and could scarcely belong, to a single man, nor, indeed, to a single age." Mr. Flourens in this sentence, which is the first of this history, gives the key to the volume. "Galen," he says, "commenced the discovery by combating Erasistratus; he opened the route, which, followed afterwards by Vesalius, by Servetus, by Columbus, by Cæsalpinus, and by Fabricius ab Aquapendente, conducted us to Harvey."

This volume consists, then, in tracing, through the writings of the authors whose names are here cited, the thought which, by degrees, led to the enunciation and demonstration by Harvey of the fact of the circulation of the blood.

As a work, it possesses more than ordinary interest to the medical reader, as it refers to one of the most important epochs in the history of our science. The name of the author is a guaranty for its faithful performance; and no one who reads this book can fail to be interested with the clear manner in which the gradual unfolding of this great truth is developed, as it commenced with Galen and culminated with Harvey.

EDITORIAL AND MISCELLANEOUS.

— The present number closes the twelfth volume of this journal, and it is with some feeling of satisfaction that we look back upon the labor accomplished during the six years which have elapsed since the Monthly was established. While its pages have been open to the whole profession, and many valuable papers have appeared therein; while the candor of its reviews, and the honesty with which the labors of others have been appreciated, have generally won for it the esteem of its cotemporaries, it has not been entirely free from the evil which pursues all medical journals in this country. It has seen its seasons of depression, and felt the want of that material aid which gives force to any undertaking. Its complaints have, however, been few, for knowing full well that integrity of purpose, and a faithful performance of its duty, would meet with its reward, it has persevered with the hope that it would soon find it.

We acknowledge many kindnesses from our cotemporaries; we have credited many evidences of consideration from our subscribers, for all of which we are thankful; and while we trust that those who have received our monthly budget, without returning the expected reward, may wake up from their temporary obliviousness, and remember that what is worth reading is worth paying for, we look forward with hopeful anticipation to renewed labors, increased facilities, the continued encouragement of our old friends, and an enlarged sphere of usefulness.

Rarely have the pages of the Monthly been sullied by any personality. This we shall always guard against, our intention being to give our readers a medical journal, not a sporting one.

Our communications have come from all parts of the Union, as the journal goes to every State and most of the Territories. We have aimed to represent our country, and have only presented the claim of New York to that in which we thought she was pre-eminent. In sentiment we are cosmopolitan, as is our profession, and we recognize our confrere everywhere. We take the good wherever we can find it, and are willing that all should share with us. We seek to progress, for not to advance is to recede, and with this declaration we close our twelfth volume.

—The first regular meeting of the Academy of Medicine, for Nov., being the Anniversary of the Academy, the occasion was occupied by the delivery of the annual address. This year Dr. W. C. Roberts entertained the Fellows by an "Eulogium upon the Medical Profes-

sion." We suppose that it will share the fate of its predecessors and be printed, when we shall return to it, reserving what we have to say about the address till that time.

At the second meeting in November, Dr. S. C. Foster exhibited Dr. H. G. Davis's apparatus for the treatment of Pott's disease; explained the nature of the invention, and illustrated the principle involved by its adaptation to a boy who had been treated by Dr. Davis, and had recovered from an extensive caries of the spinal vertebræ under its use.

A resolution, which had been offered at a previous meeting of the Academy and referred to the Council, having for its object the exclusion of reporters from the sittings of the Academy, was reported upon by the Council, which recommended the ignoring of the whole subject. A warm, personal, and not altogether academic discussion, hereupon arose, which we care not to reproduce here in its true light, for the honor of the Academy.

The remarks made by the President were, upon the whole, sound. In the course of the debate, however, while attempting to strengthen his argument in favor of the public press by depreciating the medical press of this city, more especially in its relation to the Academy, he indulged in some unjust expressions, which we are sure, upon more thoughtful consideration, would have been modified.

Although we by no means consider ourselves as falling within the scope of Dr. Watson's remarks, yet we deem it our duty to show how unjust those remarks were as regards ourselves, and how necessary it is for men occupying his present position, to avoid carelessness of speech.

The MONTHLY has always reported quite fully every important discussion which has occurred at the Academy during the last three years, and has also kept a running account of the acts of that body when nothing particular has transpired to warrant a more lengthy report. That the discussions have not been more frequent, and the acts of the Academy more fruitful, is not the fault of the MONTHLY.

Let us recapitulate, however, what the Academy has done, and how far and how well the MONTHLY has performed its office of a chronicler, so that this subject may be judged rightly.

The papers, reports, and discussions which occurred relative to the subject of "Injection into the Bronchial Tubes," were fully reported in the MONTHLY. The value of it we will not question, for it occupied the time of the Academy more or less for many sittings. The original paper—the origin of the discussion—was subsequently translated into

the French, and published in the *Gazette Hebdomadaire de Paris;* a portion of the majority report was incorporated by Mr. Erichsen into the last edition of his work on Surgery; and finally, the whole subject was frequently referred to during the recent discussions upon Catheterism of the Larynx and Tubage of the Glottis, at the French Academy, and was the means of establishing the priority of this operation for one of our own countrymen.

The Monthly was the only medical journal which published a report of this discussion.

The discussion on Puerperal Fever, which occurred subsequently to that just mentioned, was also reported in the Monthly, and was the subject of quotation and remark by medical writers, and by those who took part in the discussion before the French Academy, when the same subject was brought before that body. We were not alone in publishing this discussion, the *New York Journal of Medicine* having also admitted most of it to its pages.

The next discussion was that upon the Prostate Gland, and that, too, we reported fully from stenographic notes taken at the time. This also has found its way into foreign journals.

To insure correctness in the various reports, the proof, before going to press, has invariably been submitted to the Fellows whose remarks were reported; so that if there be any error in the report, of which we have yet to hear the first complaint, to them must belong the responsibility.

The "Whitney Case" is still fresh in the minds of all, and that our report of it was scrupulously exact no one can deny. If anything occurred during the discussion of this subject which was not to the honor of the Academy, or to those engaged in it, it is the fault of those who introduced it into the Academy, and who took part in it. We believe it was the first official act of the present President of the Academy to request Dr. Green to give a statement of this case, and it was the closing speech of the present President of the Academy which gave umbrage to the family of the person whose case was under consideration.

The last discussion which has taken place before the Academy was on yellow fever. In our humble estimation, it was not of a character to interest our readers generally, and not discerning any new fact in the verbiage of the arguments advanced, we decided not to publish it. A report on the same subject, made to the Academy by Dr. John H. Griscom, entitled "A History, Chronological and Circumstantial, of the Visitations of Yellow Fever at New York," was published in the

MONTHLY for February, 1858, which we consider far more valuable than the discussion recently held.

This is enough to show to what extent we have reported the discussions of the Academy. How faithful the reports are, we leave to others to judge; premising that, when the authors commend, others can scarcely find fault.

We might adduce the publication of Dr. Dalton's paper on the Anatomy of the Placenta, the Report on Swill Milk, and others, to show how far the MONTHLY has gone to sustain the Academy, and to spread its light before men.

In all these instances, the papers have been revised by the authors, where it was possible, so that no fault could be attributed to the MONTHLY. No other journal has done so much; and if this has been done to the detriment of the Academy, as the President's remarks would lead one to suppose, then the fault is in the officers of the Academy for permitting such papers to be read, and such discussions to be held before the Academy.

— The College of Veterinary Surgeons, which was incorporated by the Legislature last winter, have recently taken possession of the new building erected for them on the corner of Twenty-third Street and Sixth Avenue. The design of this institution is to teach both the theory and practice of medicine for the horse; to afford the facilities of studying the anatomy, physiology, pathology, and diseases of that animal, by means of a museum, dissecting-room, and a lecture-room; to extend the most useful knowledge as regards his management in health, so as to prevent disease; to furnish reliable information as regards the breeding of animals; and lastly, to have a range of stables to teach by practical example how the horse ought to be taken care of. The last census states that there were nearly 600,000 horses in this State, no unimportant part of its wealth, which this institution is calculated to increase, by introducing and extending an improved treatment and management.

The faculty, as at present constituted, are: John Campbell Ralston, V.S. and M.R.C.V.S., the projector of the College, Prof. of Veterinary Theory and Practice; John Busteed, M.S., Prof. of Anatomy and Surgery; R. O. Doremus, M.D., Prof. of Chemistry and Materia Medica.

— The Seventeenth Anniversary of the Society for the Relief of Widows and Orphans of Medical Men was celebrated Tuesday evening, November 15th, by a dinner at the Metropolitan Hotel. There

were present about 150 members of the Association, and quite a good time they had of it. The report made upon the finances of the Society showed that it was in a most prosperous condition, having $27,000 invested in 7 per ct. bonds and mortgages, with but small demands made upon its resources. Since its organization but twenty-three of its members have died; the last year, but one. Dr. A. N. Gunn, the present Health Officer of this Port, became a patron of the Society by a donation of $150.

— The New York County Medical Society held its annual meeting, elected its officers for the ensuing year, and then adjourned, to meet again in another twelvemonth for a like purpose. An interesting Society is the New York County Medical Society.

— In the October number of the Monthly we gave a short account of a new disinfecting compound, proposed by Dr. Corne and Mr. Demeaux, and brought before the Academies of Medicine and Sciences of Paris, under the auspices of Prof. Velpeau.

The introduction of this disinfectant powder has excited warm discussions at both the Academies. These have reached Old England, and science has echoed back to France words of dispute. Dr. Martan Lauzer, in the *Revue de Thérap. Médico-Chir.*, for September, thus pleasantly gossips on the discussion as to the kind of coal-tar to be used: "What kind of coal-tar do you mean, *Messieurs les Français*? our good neighbors ask us. Are you ignorant of the fact, that there are disinfectant coal-tars, and those which are *not* disinfectant, and some even that *are* infectant? Reject the coal-tar of Demeaux and Corne, says Moride, and take my Boghead coke. Take care, screams Calvert, of Manchester, that is the worst of all; learn that coal-tars vary enormously. That from the Newcastle pit-coal is composed almost entirely of naphthaline; that from Boghead of paraffine; that from the Wigan Cannel coal of benzine and carbolic acid; that from the Staffordshire coal of heavy oil and much neutral carbide of hydrogen. But paraffine, benzine, naphthaline and heavy coal oil, possess but little antiseptic power, whilst carbolic acid possesses this property in a high degree. Wigan Cannel coal, containing 14 per cent. of this precious substance, should be preferred to Staffordshire, which contains only 9; to Newcastle, which contains only 5; and especially to Boghead, which only contains 3. And the proof of the relative disinfectant power does not date from yesterday, according to Mr. Calvert, who saw, in 1851, dead bodies, in the Medical School of Manchester, injected with a weak solution of this acid, preserved perfectly for some weeks; and, at the same time, a piece of horse-flesh, which had been

soaked in the acid, being exposed to the changes of weather for three years, was preserved without any decomposition. A thousandth part of this acid, being added to some urine in summer, preserved it fresh for three or four weeks. A like proportion prevents the gallic acid fermentation, or the conversion of tannic into gallic acid in extracts of tanning materials found in commerce, such as sumach, &c., thus allowing manufacturers of extracts of tanning substances to preserve them for some months. It is only necessary to rub the inside of the skin of animals or furs, in order to preserve them from insects for months."

"But what is this carbolic acid, thus extolled by Calvert? A white solid body, crystallizable, obtained on the distillation of a number of substances of organic origin, and especially from certain coals and from benzoin. Knowledge of this substance—discovered by Runge—extends as far back as 1834. It has been known by no less than five names: *Carbolic acid*, *phenol*, *phenic acid*, *phenic alcohol*, and *hydrated oxide of phenyle*. In the last edition of Orfila's Chemistry, (1851,) it is noticed as coagulating albumen, and *preventing* putrefaction. He directs, in its preparation, that coal-tar, which has been distilled between 150° C. and 200° C., be mixed with a concentrated solution of potassa; there is formed a phenate of potassa, which may be separated by the solvent action of water. This salt is then decomposed by chlorhydric acid, which eliminates the carbolic acid."

"From the communication of Calvert, one would conclude that it was better to employ pure carbolic acid than coal-tar, especially as it is contained in the latter in small proportions. The cliniques at first shouted '*Marvelous!*' The report of the surgeon *en chef* of the Italian army was perfectly favorable to the new powder. The substance was employed at Milan. Twenty of the wounded were treated for three days with this disinfectant application. The result was clear and incontestable. At each dressing putridity was modified, and the condition of the wounds ameliorated."

"Moride follows up Calvert's article with a long paper on Boghead coal and its preservative effects. By its means, urine, fæcal matters, and the refuse from the slaughter-houses, are disinfected and reduced to a pulverulent mass, and removed from cities in carts without any inconvenience. It disinfects clotted-blood and thick fæcal matters, *volume* for *volume;* but only produces this effect on serum, liquid blood, urine, &c., in proportions of 10 parts to 8 of the substance to be disinfected."

We may sum up what is valuable in these communications by saying that all coal-tars, on account of the carbolic acid, and probably the creosote they contain, are useful as disinfectants; *when* plaster is

added to them, (and this, we take it, must be *calcined*, although it is *not* so stated in the paper of Demeaux and Corne,) it absorbs the liquids, thus preventing their exposure to putrefaction. The mere presence, however, of coal or coke, independent of the substances produced by the agency of heat, cannot act as an antiseptic, although it may be a disinfectant. L. H. S.

—Mr. Thomas Spencer, in a paper "On the Supply and Purification of Water," read before the British Association, stated that ozone is only polarized oxygen, and it was through this action of oxygen that he had succeeded in purifying water containing a large amount of coloring matter, rendering it perfectly clear and pure. In experimenting for the purpose of purifying water by artificial means, he had attempted to discover the mode by which nature converted impure colored surface water into colorless spring water. By degrees his experiments led him to the fact that all rocks and minerals containing protoxide of iron effected the filtration of water better than any other. He also found that the same oxide, when isolated in the state of "magnetic oxide," not only freed water from turbidity more effectually than an equal thickness of sand, but effected its discoloration with marvelous rapidity. From this it appeared that the protoxide of iron, as magnetic oxide—a substance which enters into the composition of so many rocks—was one of nature's chief agents of purification. In illustration of these views, some bog water, much darker in color than ordinary porter, was almost instantly deprived of its color, and rendered bright, clear, and perfectly free from taste. By several who partook of it, it was pronounced equal in these respects to spring water. The means employed were very simple. The colored water was poured into a glass vessel containing a layer of about five inches of equal parts of coarse sand, and a hard ferruginous substance, perfectly magnetic, on which the water issued forth with great rapidity perfectly colorless. What was extraordinary in this connection, was the fact that *the magnetic filtering medium itself suffered no deterioration after any period of operation.* Mr. Spencer thought that the magnetic oxide attracted the oxygen to its surface, and when there it necessarily became polarized. Whilst in that state, and *only whilst* in that state, it combined with the organic coloring matter to form a new substance. He considered *the oxygen when in this state of polarity as neither more nor less than ozone.*

—Dr. Mercer Adam resumes his interesting sketches of the Universities, Hospitals, &c., of Germany, in the October number of the

Edinburgh Medical Journal. Passing from Würzburg to Munich, he stops at Bamberg to change cars, and uses this occasion to discourse on the national beverage—beer, which every one seemed to be drinking. We extract what he says upon Bavarian beer in particular:

In Bavaria, however, there is a difference in the mashing process; for the wort is a *decoction* of the malt, instead of a simple *infusion* of the grist, as is usual in England and Northern Germany. Good German beer thus prepared contains water, sugar, dextrine, gum, extract of hops, alcohol, carbonic acid—sometimes vegetable albumen and a little resin—and several earthy salts, such as the phosphates of lime and soda, sulphate of lime, a trace of chloride of sodium, etc.

Is all this use of beer wholesome in a dietetic point of view? Ask a Bavarian, and he will answer you, shrugging his shouldens and raising his eyebrows with delight, "*Ach, mein Herr! das Bier ist flüssiges Brod!*" (My dear sir! beer is fluid bread!) Now whatever the teetotal party may say to the contrary, the honest German's answer is very near the truth. Böcker of Bonn, Mulder of Utrecht, and other eminent physiological chemists, have shown us clearly and indisputably that beer and wine, by arresting the destructive metamorphosis of our tissues—especially of those containing phosphates—are both valuable as indirect nutritive agents. Will it be credited that a pint and a half of good beer will afford a hard-worked man about as much nourishment as a pint of milk? The physiological effects of beer on the animal economy are these: The carbonic acid of the blood is increased, and the excess is eliminated by the skin and kidneys, and burnt off in the lungs. The alcoholic elements stimulate digestion, increase the appetite, and facilitate the absorption of nutriment by the alimentary canal. Its sugar and dextrine, transformed into lactic acid and sugar, pass into the portal system, where they increase the bile-forming constituents of the blood, and offer the source of additional animal heat. And, lastly, the narcotic principle of the hops soothes the excited or irritable nervous system. Thus we can understand how beer, like wine, is a valuable aid to nutrition, in virtue of its tonic and sedative properties, and on account of its arresting the waste of tissue inseparable from intense or continued mental application. "Surely, then," says Dr. T. K. Chambers, "that is a truer philanthropy which turns its attention to increasing the variety and quantity of wholesome fermented liquors, than that which, by precept or example, endeavors to deter men from them altogether."

Reaching Munich, he visits the Universities there, and thus sketches its Professors:

Among the Munich professors are several men whose names are familiar to all the scientific world—such as Liebig, Bischoff, Siebold; but there are also many men of great abilities, whose reputation is as yet principally confined to Germany. Of these we propose, in passing, to say a few words.

Baron Liebig is so well known in England, and his chemical theories have been so generally diffused among the present generation,

that little needs to be said about him or the influence of his works. He was born in Darmstadt, in 1803; he and Mitscherlich studied together at Paris about 1822 or 1823; and in 1824 he was appointed Professor of Chemistry in the University of Giessen, in Nassau. Just as the genius of Boerhaave gave a world-wide fame to the University of Leyden, so did the brilliant intellect and wonderful labors of Liebig raise the College of Giessen from comparative obscurity to a high degree of eminence. His reputation attracted hither students from all parts of the world, and they, in their turns, became apostles of the new chemical doctrines which he taught, and which he had slowly elaborated in the model laboratory of Giessen. He accepted the Chair of Chemistry, and the Presidency of the Royal Laboratory in Munich, in 1852. Long may he live to enjoy his honors, and to enrich science by his labors.

Nor is there much need that I should enlarge on the character and achievements of Professor Theodore Ludwig W. Bischoff, who holds the chair of anatomy and physiology. He also, like Liebig, was a luminary of the Giessen school, and afterwards Professor in Heidelberg, before he was appointed to the chair in Munich. He first attracted public notice by his well-known labors as an embryologist, and by gaining the prize offered in 1840, by the Prussian Academy of Science, for a monograph on the development of the ovum of the rabbit. His prize essay on this subject, published in 1842, continues to this day one of the highest authorities on fœtal development, etc. Besides his latter contributions on the physiology of menstruation, it will be in the remembrance of most readers, that he recently distinguished himself by an admirable treatise on urea, as a measure of the amount of metamorphosis of tissue. This little work was a defence of the doctrines of the Giessen school, of which he was then a professor, and a justification of Liebig's dictum, that it was "impossible urea can have any other origin than the metamorphosis of the nitrogenous tissues," in opposition to the views of Bidder, Schmidt, and others, who thought that the urea excreted was only partially derived from this source. Professor Bischoff is still a very hard-working man, enthusiastic in the prosecution of science, and much beloved by his students. He is the conservator of the Anatomical Museum. This is contained in a spacious and elegant building, and the collection is very large and valuable. My limited time precluded me from examining it with great minuteness; but I have a vivid recollection of a curious preparation to be found there: viz., *the uterus and ovaries of a woman who is still alive!* A medical man pulled these organs down into the vagina by means of forceps, believing that he was extracting the placenta the while. He then removed them; the wounds healed kindly; and the patient recovered favorably! I believe that no similar case is on record.

Another well-known name is that of Charles Theodore von Siebold, the Professor of Zoology and Comparative Anatomy. Both he and Kuchenmeister are principally known by their researches on entozoa, and by their valuable experiments, which proved so distinctly the production of tænia from some form of cysticercus swallowed in the food.

He is also author of a most valuable work on comparative anatomy, which he wrote in conjunction with Stannius. He is also, with Köl-liker, co-editor of the *Zeitschrift für Zoologie.*

Special therapeutics, as applied to clinical medicine, are taught by Professor von Pfeufer, who, with Henle, is conjoint editor of the *Zeitschrift für rationelle Medicin*, which usually is named after them. Ringseis is Professor of Special Pathology; Weissbrod, of Midwifery; Gietl, of Practice of Physic; and Buchner, Pharmacology. Professor Max Pettenkofer is well known as an able pathological chemist. One of the most rising men in this University is Dr. Ludwig Buhl, Pathologist to the General Hospital, who has given evidences of rare abilities as a morbid anatomist. He has contributed largely to the current medical literature of the day, and his articles generally appear in Henle's *Zeitschrift.* In 1856 he published a very important series of pathological observations, based on 280 post-mortems, performed at the Munich Hospital. His descriptions of pneumonic lungs in this paper are novel and graphic; but his divisions of the disease into the three forms of tubercular, croupous, and desquamative, are somewhat fanciful, and rather too refined for practical pathologists. The tubercular variety he attributes to a total arrest, and the croupous to a simple disturbance of nutrition in the lungs. The desquamative form, he says, only occurs in red hepatization; in it there is great redness and toughness of the parenchyma; it does not present capillary hæmorrhages, fibrous exudations, or pus corpuscles; but the air is expelled from the pulmonary vesicles by means of the puffy and swollen epithelium, and by an albuminous exudation which gums them fairly together for a time. The epithelium desquamates, and is replaced by new tissue; so, from its analogy to *Morbus Brightii*, Buhl has given it the name of desquamative pneumonia. This variety he considers rare in the dead-room, on account of the great tendency which there is to a favorable termination.

Professor Buhl has also directed attention to a peculiar form of acute atrophy of the lungs, which occasionally occurs in the course of typhus; and this appearance he regards as the highest grade of desquamative pneumonia. During the epidemic of cholera, which visited Munich so severely in 1854, Buhl was indefatigable in grappling with the pathology of this mysterious disease, and his monograph on the subject is probably one of the ablest that we possess.

Nor must we forget to mention among the medical notabilities of Munich, two of the *privat-docenten*, who are physicians of great ability, although less widely known. I allude to Dr. Breslau and to Dr. Lindwurm. Both these gentlemen are distinguished for their courtesy to any English physician who may visit Munich. The former was unfortunately from home all the time I was in the city; to the latter I feel deeply indebted for the opportunities which he afforded me of seeing all the medical institutions, and for all the information he so readily afforded me on every subject I investigated. Dr. Lindwurm is an accomplished English scholar, and he has done "yeoman's service" to his countrymen by placing in their hands an excellent translation of Stokes on *Diseases of the Heart.* He has visited Great

Britain twice; and on the last occasion, he went specially to Dublin, in order to study the types of fevers in the hospitals there, and to satisfy himself whether or not the typhus and typhoid fevers were identical, or nosologically distinct diseases. On his return to Germany he published a little treatise on the subject, in which he relates his impressions, and inclines to the opinion that the two fevers are the same disease, occurring in different degrees of intensity.

Ascarides.—M. Bourgeois d'Etamps asserts that the introduction of mercurial ointment into the rectum has never failed to effect the destruction of these animals in all the numerous cases in which he had tried it. And he adds that it was only in those cases in which other remedies had failed that he had used it. In the case of a child the mother is directed to introduce into the rectum, as high up as possible, a piece of the ointment on the end of the finger. A grown-up person can do it for himself. All itching, etc., at once ceases; but it is advisable to repeat the introduction three or four times. The small quantity of mercurial substance requisite for the destruction of the animals is really astonishing. No doubt the glysters of M. Legroux, in which the mercurial ointment is held in suspension, act in a similar way, but they are more complicated in use. M. Bourgeois d'Etamps suggests that, at all events, if the mercurial ointment is thus used, it might be dissolved in oil, and so injected. Be this as it may, its direct action is so marked as a destroyer of the ascarides, as to place it, in his opinion, above all other remedies.

Remarks on the Epidemic of Diphtherite, (or Hog-skin Angina.) Translated from the French, by O. D. Palmer, M.D., Zelinople, Pa.

Notwithstanding the positive opinions of some authors to the contrary, diphtherite is an affection still but little known. Whilst maintaining this position, it seems to me proper that those who have been called upon to observe it, should make known, not only what they have been able to see particular in the new epidemic, but also the comparative appreciation of the general facts, as they have been observed by themselves, or as they have been learned from others.

In the commencement of this epidemic, with my memory surcharged with the writings most recent and esteemed, and more especially with the original works of M. Bretonneau, I considered myself armed against it; all seeming to me simple and clear. The mode of propagation, contagion, progressive extension; the disease extending from the throat or nasal fossæ into the rest of the organism, at first wholly local, drawn to the exterior, and only affecting the whole system from the external to the internal parts; the therapeutic success, dependent on the energetic application of the wholly surgical means, that is, dependent on the hands of the physician—all was simple, and my only expectation was to have to follow the best models.

My hopes have been betrayed; the perfect image that I awaited has discovered itself in a very different shape, as will appear from the picture that I am about to trace.

I have seen an affection raging among different populations, at-

tacking at the same time individuals having no communication with each other, without regard to other diseases, with but few rare exceptions originating from an unknown influence, and seeming to choose its subjects indiscriminately. The disease begins like a severe eruptive fever, in the midst of a large retinue of general symptoms, with considerable tumefaction of the ganglions, even when the false membrane is hardly developed; commencing in the throat, to extend from one part to the nasal fossæ, and from another to the respiratory passages, and sometimes to the digestive apparatus; showing itself also in the auditory conduit, at the vulva, in the vagina, in cutaneous lesions; attacking various points of the organism, without relation to contiguity—the throat with the vulva, the throat with the bronchia, the larynx remaining sound; the throat, then the intestines. These coincidences, indicated by the symptoms, have not been justified by the opening of bodies; but in two cases of tracheotomy, I have been able to demonstrate the absence of false membrane in the trachea, whilst it existed in the bronchia, or was in the state of being formed. In a good number of instances the adventitious membrane has been detached without treatment, or with very little, and as quickly as when cauterizations daily or even more frequently have been practiced. This is no hindrance to the re-formation of false membrane, in parts contiguous or remote, and these new attacks have taken place, both when the throat contained the pseudo-membrane adhering, and when *this was completely free.* That is to say, we have observed an affection, originating more from epidemic influence than from contagion, marching, in the manner of the exanthematous fevers, from the circumference to the centre, not always following the way of contiguity, in extending its characteristic products, little susceptible of being arrested in its progress by caustics, but sometimes yielding to the efforts of spontaneous reaction—an indication that we should endeavor to imitate, in furnishing the organism means of sustaining a frequently unequal contest.

All is linked together in the doctrine of M. Bretonneau. Generalizing the facts of incontestable contagion, he admits that in all circumstances the diphtheritic germ is deposited locally, as it is in syphilis. He forgets that with whatsoever part of the skin or mucous membrane the virus comes in contact, it is the throat, amygdalæ, and nasal fossæ, that produce, with some rare exceptions, the first vestiges of false membrane, belonging to this species of *angina.* It is different in this particular from syphilis, to which it assimilates, and which acts at first, and always, on the part where it is applied. There is, then, in all cases, and especially in serious cases of diphtherite, a diseased action internally succeeding to the contagion, (when it is caused by this,) and subsequently producing a similar disease, as takes place in the eruptive diseases, variola, rubeola, and scarlatina, which likewise appear insidiously, and without our being obliged to refer their origin to contagion. May it not be the same in this pseudo-membranous angina? I have offered sufficiently numerous examples before, and have remarked elsewhere, "its contagion is *possible;* it is not at all *necessary.*"

From the full conviction of the development of this disease *internally*, to that of its destruction, at once, by cauterization, is but a step; this step has been taken, and numerous successes are furnished in support of the doctrine. They have been shown, doubtless, in severe cases, but much more often when the cure has either been wholly spontaneous, or obtained by the mildest means. These successes have not been wanting to me, either, though I have confined my cauterizations to the *isthmus of the throat*.

It is, then, by figures, that it will be necessary to resolve this important question, and its solution is required by science. Whilst awaiting, may we not be permitted to adduce the greater success in tracheotomy, since surgeons no longer *cauterize* the trachea after the operation, against the utility of such a practice in the larynx?

With my own experience, and after an attentive perusal of the known facts, I think we are not far from the truth in considering this primarily a general disease, inclined to manifest itself upon the mucous membrane in the same way that the eruptive fevers do upon the skin. Doubtless this view is less seductive, in a therapeutic point of view, than the preceding one; for were it established, we should be left unarmed against this, as we are against the eruptive fevers, all the phases of which we are obliged to submit to, without the beneficial interference of heroic means. But if this is the truth, we must accept it as it is.

Pathological anatomy, chemistry, the microscope, have not as yet afforded very great aid to the study of diphtherite. The first of these, in explaining the internal lesions caused by this disease, has only confirmed, in regard to the interior, what clinical observation had established, in the living, in the parts accessible to view. It has shown, also, the liquid state of the blood, the vascular congestions resulting from this state, and the mechanical asphyxia caused by the false membranes obstructing the air-passages. It has examined, perhaps too negligently, the lymphatic system, which appears to play the most important part in this disease.

Chemical analysis and the lens, in ascertaining the fibrinous nature of the false membrane, have still not been able to distinguish it from the *pultaceous covering* that accompanies a pathological state very different from the pseudo-membranous angina.

The chemists and micrographers ought to give us correct examinations of the blood at different stages of the diphtherite. This would probably open the way to a knowledge of the morbid state that certainly precedes a primitive modification of this fluid, before it is essentially altered by the enormous amount of fibrin thrown upon the mucous mumbrane—a consecutive alteration, that explains so well the hæmorrhages and congestions, the debility so great and so slow to disappear, and those paralyses which hamper convalescence.—*Gazette Hebdom.—Boston Med. and Surg. Journal.*

Bromide of Potassium.—The Fellows of the Medico-Chirurgical Society of London will recollect the alleged uses of bromide of potassium, as pointed out by their late President in reference to certain affections of the nervous system. Dr. Pfeiffer, of Paris, has lately

experimented with the compound on the male sex. M. Thielman, in 1854, obtained good results, as he asserts, from its use in painful erections, satyriasis, and spermatorrhœa; and his results are now confirmed by Dr. Pfeiffer. He finds that it exercises a happy influence over seminal losses, abnormal erections, and neuralgia of the neck of the bladder. It has a special power over the muscular part of the genito-urinary apparatus, and at the same time causes a marked amelioration in the secreting action of the same organs. In large doses it appears to produce symptoms like those caused by iodide of potassium.

Emboli.—The following conclusions respecting the obstructions of vessels by solid bodies or fibrinous concretions, are well drawn up by Professor Schutzembergen :—1. Fibrinous concretions or solid bodies formed in the heart or great vessels, may be detached from their seat, carried along in the current of blood, and so obstruct different secondary branches of the vascular system. 2. This fact is neither absolutely rare nor exceptional; it constitutes a special and very peculiar affection of the arteries, which has been called by Virchow "Emboli." 3. This affection was for a long time misunderstood; is now shown to exist both by scientific induction and clinical and microscopic observation. 4. It has been observed as a consequence of gangrenous inflammation of the pulmonary veins; of organic affections of left side of the heart; and of atheromatous degeneration of the large arterial trunks. 5. Its most frequent cause is derived from fibrinous or calcareous concretions, and polypoid excrescences developed on the mitral valve, and carried along in the current of blood. 6. When the patient does not succumb under a first attack, another generally follows. Thus the attacks are multiplied. 7. The arteries most frequently found affected are:—the Sylvian artery, the internal carotid, the arteries of the upper and lower extremities, the splenic, renal, external carotid, and mesenteric. 8. The obstruction ordinarily occurs at contracted points of the arteries. 9. If, in consequence of the obstruction, a collateral circulation is established, only temporary disturbance is produced. 10. But if no collateral circulation is established, then follow organic alterations, mortifications, and gangrene, dry or humid, partial or general. 11. In the parenchymatous organs the obstruction of the arterial branches produces sanguinary or circumscribed fibrinous infarctus. 12. In the brain the infarctus usually occasions yellow softening. 13. In the spleen and in the kidney the infarctus produces a special lesion, exactly circumscribed, ordinarily of a conical shape, varying in color according to its age, and often denser than the rest of the parenchyma. 14. Emboli in the cerebral arteries produce functional disturbances analogous to an attack of apoplexy. The symptoms do not differ from those of cerebral hæmorrhage or acute softening.—*Medical Times and Gazette.*

The following mixture is proposed by Dr. Pacini for the preservation of blood globules, nerves, ganglions, the retina, and the white tissues generally: Protochloride of mercury, 1 part; chloride of sodium, 2; glycerine, 13; distilled water, 113 parts.

All men of genius, according to M. Moreau, are men in different stages of madness; genius is a neurosis.

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